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TAXIDERMIC SPECIMENS

WORLD'S COLUMBIAN EXPOSITION

HINTS ON CURIO BUYING

SMITHSONIAN
INSTITUTION

389.

A
BRIEF DESCRIPTION
OF THE
TAXIDERMIC SPECIMENS
OF
OHIKI, SHAMO AND CHABO.
EXHIBITED IN THE
WORLD'S COLUMBIAN EXPOSITION
PUBLISHED BY
THE AGRICULTURAL BUREAU
OF THE
DEPARTMENT OF AGRICULTURE AND COMMERCE.
J A P A N.



1893.
Freer Gallery of Art
Washington, D. C.

OHIKI.

(JAPANESE LONG-TAILED FOWL.)

The long-tailed fowls are only bred in Shinowara mura, Nagaoka county, Tosa province. During the time of Tokugawa dynasty, the breeding of these fowls was much encouraged by the government of the feudal lord (Yamanouchi) and their tail feathers were taken in payment of local taxes, being used to adorn the lord's spears and the birds and feathers were not allowed to be exported. During this time the breeding, feeding and management of the fowls attained a high degree of perfection.

Owing to the difference of their color, voice and appearance, they are classified into various breeds, for example Shirafuji, Shinowarato, Tōtenkō, &c. As their feeding and management are very difficult and their price is not very cheap they are only kept as curiosities or pets. The cock and hen exhibited here, belong to the Shirafuji breed and are four years old. They were hatched at the farm belonging to a farmer called T. Kinzō in Satokaidamura, Nagaoka county, Tosa province. Their tails measure 10 feet and 6 inches. The single black cock belongs to the Shinowarato. It is two years old and was hatched at the farm belonging to K. Nagayoshi in the city of Kōchi, Tosa province. The length of the tail is 5 feet. The tail will probably attain the length of 10 feet in two years' time.

SHAMO.

(MALAY OR SIAMESE GAME.)

It is largely used as food, because its flesh is very delicious. It is also kept as a game fowl, and a good one commands a price of from twenty to thirty yen. The following points are the characteristics of the Shamo as a game fowl.

1. It is large and active.
 2. Its feathers are lustrous and very thick.
 3. Its body is erect and the muscles of the thighs, are strong and well developed.
 4. It is not discouraged before a stronger enemy and fights until it is dead.
- The Shamo which have the above characteristics in the highest perfection are considered the most excellent ones.

The cock Shamo exhibited here is about two years old, having been hatched in February 1891. The male weighs 9.94 pounds and the female 6.63 pounds. They are able to endure severe cold and heat and the male has all the characteristics mentioned above. In fighting he is wonderfully quick and has never been defeated yet.

CHABO.

(JAPANESE BANTAM.)

The pure breed is only kept in Japan. It is a quiet and peaceful fowl, and is supposed to announce the hour exactly. The male and female live together in perfect harmony. Though its flesh can be used as food, it is mostly kept as a domestic pet.

In color of plumage, some of them are quite white, some are half white and half black, and some are white having black tails. According to the color and shape of their bodies, they are separated into different breeds. Excellent ones are very highly valued.

The one exhibited here white with a black tail belongs to the breed called Katsura. It is two years old having been hatched in March 1891. The white one belongs to the breed called Haku (white). It is also two years old, having been hatched in March 1891. In the city of Tōkyō the breeders assemble frequently to exhibit their Chabo and to compare their qualities. Such a meeting is called Chabo-hinpyō Kwai (the show of the Chabo.) The pair of the Katsura breed exhibited here had the honour of being the best in the first rank in the show which was held at Uyeno park in the city of Tōkyō in December 1892. The one of the Haku breed had the third rank in the same show and was the best one among the pure white breeds.

The cages in which the Ohiki, Shamo and Chabo, are kept are those commonly used in Japan for feeding.

[These taxidermic specimens were prepared by Kyōikuhin-seizō-Kwaisha (educational appliances manufacturing, Co.) No. 2 Shichikenchō Asakusa, Tōkyō.]

A
DESCRIPTION
OF
BEES, HONEY, BEESWAX AND
BEE APPLIANCES
EXHIBITED IN THE
WORLD'S COLUMBIAN EXPOSITION
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JAPANESE HIVE.

The hives used in Japan for the purpose of keeping bees are numerous.

The simplest and most convenient one is the hive called Sērobako which is used in district of Fukuoka. It is made of the old wood of pines, cryptomeria or persimmon. It consists of six square cases, each of which is 7.2—8.4 inches in length and breadth, 3.6 inches in height. They are put in the outer frame which is made of wood. There are two boards, one on the top forming the cover and the other at the bottom of the hive. The latter projects 2.4 inches from the lowest case as the alighting board, and can frequently be drawn out in order to remove excreta. Cross bars are put diagonally in each box except the lowest one. The entrances are made on the side of the lowest case, facing the alighting board. They consist of 1—3 rectangular holes, 0.36 inches in height (the broader the less is the number) and certain round holes, 0.36 inches in diameter, above the latter. The holes are so designed that bees alone can pass, but the enemies such as Akabachi (*Vespa* sp.), Yamabachi (*Bombus* sp.), Kumabachi (*Vespa* sp.) and Uchisuzume (a kind of moth) cannot enter through them. The inner surface of the hive, cross bars and the outer surface facing the alighting board must be rough without planing. The joints of the cases are fitted tightly and are pasted over with paper in order to keep out the rays of the sun. Moreover the outer surface of the whole arrangement is wrapped with straw mats in order to prevent the entrance of the cold and heat.

THE WAY OF USING THE HIVE.

The introduction of bees into the hive is performed in the following way. The bees just swarmed are gathered on the lid of the iron bottle, which is made of straw and is called Rappo. The cover and three cases of the hive are pasted with paper and are hung down from the eave. The upturned lid with bees is brought under the cases and wrapped together with cases in a cloth. After a few hours, all the bees will have passed into the cases. Then other three cases are added and pasted with paper as is done before and the outer frame is put on. The whole arrangement is wrapped with straw mats and is hung in a place under eaves or trees, where it is shady at the afternoon.

THE METHOD OF COLLECTING HONEY.

Honey is collected in July or in August. In fine weather, the hive is taken down and the straw mats are taken off. The lower part of the hive is covered with a cloth and the cover is taken off. Bees are expelled downwards by fanning or smoking, and then the first case is cut off by means of fine iron wires or silk strings. The combs are then taken out from the case. Three cases are usually separated at one time. The cover is then put over the fourth case and three empty cases are added between the fifth and sixth cases. They are pasted over with paper and wrapped with straw mats as mentioned before. In using this hive, there is not such trouble as to hang the combs anew, because they are attached to the cross bars firmly. Moreover there is no danger that the combs will fall down.

THE QUANTITY OF HONEY AND WAX PRODUCED BY A SWARM.

Honey	1640 Momme (13.582 pounds.)
Beeswax	60 Momme (0.497 pounds.)

THE PRICE PER KIN (1.325 pounds.).

Honey	9 Sen.
Beeswax	30 Sen.

The plants from which bees collect honey are very numerous. The most important kinds are as follows:—

- Nanten (*Nandina domestica*, Thunb.)
- Midzuna (*Sinapis chinensis*, L.)
- Daikon (*Raphanus sativa*, L.)
- Kabura (*Brassica campestris*, L.)
- Kara-nadeshiko (*Dianthus chinensis* L.)
- Sazanqua (*Camellia sasanqua*, Thunb.)
- Châ (*Camellia theifera*, Griff)
- Tsubaki (*Camellia japonica*, L.)
- Sakaki (*Cleyera japonica*, Thunb.)
- Tororo-aoi (*Hibiscus manihot*, L.)
- Wata (*Gossypium indicum*, L.)
- Kinkan (*Citrus japonica*, Thunb. var *Fructu globoso*.)

- Mikan (*Citrus nobilis*, Lour.)
 Zabon (*Citrus decumana*, L.)
 Kikoku (*Citrus fusca*, Lour.)
 Daidai (*Citrus bigaradia*, Duham.)
 Sendan (*Melica azedarach*, L. var. *subtripinnata*, Miq.)
 Fushinoki (*Rhus semi-alata*, Murr. var. *Osbeckii*, DC.)
 Hazenoki (*Rhus succedanea*, L.)
 Urushi (*Rhus vernicifera*, DC.)
 Hagi (*Lespedeza bicolor*, Turcz.)
 Fuji (*Wistaria chinensis*, Sieb et Zucc.)
 Fuji-mame (*Dolichos cultratus*, Thunb.)
 Habusō (*Cassia occidentalis*, L.)
 Niwa-mume (*Prunus japonica*, Thunb.)
 Anzu (*Prunus armeniaca*, L.)
 Sakura (*Prunus pseudo-cerasus*, Lindl.)
 Mume (*Prunus mume*, Sieb et Zucc.)
 Sumomo (*Prunus triflora*, Roxb.)
 Hadankiō (*Prunus triflora*, Roxb. var.)
 Momo (*Prunus persica*, Benth. et Hook.)
 Shikizaki (*Rosa indica*, L.)
 No-ibara (*Rosa multiflora*, Thunb.)
 Ki-ichigo (*Rubus incisus*, Thunb.)
 Biwa (*Photinia japonica*, Thunb.)
 Sarusuberi (*Lagerstroemia indica*, L.)
 Zakuro (*Punica Granatum*, L.)
 Tōnasu (*Cucurbita pepo*, L.)
 Kiuri (*Cucumis sativus*, L.)
 Suiqua (*Citrullus edulis*, Spach.)
 Udo (*Aralia cordata*, Thunb.)
 Kanboku (*Viburnum opulus*, L.)
 Yomena (*Boltonia cantoniensis*, DC.)
 Kiku (*Chrysanthemum*, all varieties of.)
 Yezogiku (*Callistèphus chinensis*, Nees.)
 Kiku-imo (*Helianthus tuberosus*, L.)
 Shungiku (*Chrysanthemum coronarium*, L.)
 Tsuwabuki (*Senecio Kœmpferi*, DC.)
 No-azami (*Cnicus japonicus*, Maxim.)
 Benibana (*Carthamus tinctoria*, L.)
 Asebi (*Andromeda japonica*, Thunb.)
 Tsutsuji (*Rhododendron indicum*, Sw. var. *Kœmpferi*, Maxim.)

- Kaki (*Diospyros kaki*, L. Fil.)
 Hiragi (*Olea aquifolium*, Sieb et Zucc.)
 Chishanoki (*Ehretia serrata*, Roxb.)
 Asagao (*Ipomœa hederacea*, L.)
 Hirugao (*Convolvulus japonicus*, Thunb.)
 Nasu (*Solanum melongena*, L.)
 Jawa-imo (*Solanum tuberosum*, L.)
 Kiri (*Paulownia imperialis*, Sieb et Zucc.)
 Shiso (*Perilla arguta*, Benth.)
 Hakka (*Mentha arvensis*, L. var. *vulgaris* Benth.)
 Odorikosō (*Lamium album*, L. var. *barbatum*.)
 Soba (*Fagopyrum esculentum*, Moench.)
 Ai (*Polygonum tinctorium*, Lour.)
 Nioi-tade (*Polygonum viscosum*, Hamilt. var. *vernicosum*.)
 Mizo-soba (*Polygonum Thunbergii*, Sieb et Zucc. var. *lanceolatum*.)
 Kusunoki (*Cinnamomum camphora*, Nees.)
 Ganpi (*Wickstroemia canescens*, Meisn var. *Ganpi*, Miq.)
 Natsugumi (*Elæagnus pungens*, Thunb.)
 Aburagiri (*Eleurites cordata*, DC.)
 Nankinhaze (*Sapium sebiferum*, Roxb.)
 Yudzurika (*Daphniphyllum macropodum*, Miq.)
 Yenoki (*Celtis sinensis*, Pers.)
 Mukunoki (*Aphananthe aspera*, Planch.)
 Shirakashi (*Quercus glauca*, Thunb. var. *forma sericea*.)
 Kuri (*Castania vulgaris*, Lam. var. *japonica*, DC.)
 Ichō (*Ginkgo biloba*, L.)
 Kakitsubata (*Iris laevigata*, Fisch.)
 Suisen (*Narcissus tazetta*, L. var. *chinensis*, Roem.)
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DETAILS
OF THE
WEIGHTS AND MEASURES
EXPOSED AT
THE WORLD'S COLUMBIAN EXPOSITION

BY

The Bureau of Commerce and Industry,
Department of Agriculture and
Commerce, Japan.



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—
1803.

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DETAILS

OF THE

WEIGHTS AND MEASURES.

IMPLEMENTS USED FOR THE INSPECTION OF WEIGHTS AND MEASURES.

(Department L. Group 151. Class 865.)

The Implements used for the Inspection of Weights and Measures is applied to determine the measuring Apparatus of Capacity and Weight in conformity with the Weights and Measures Law put into force from January 1, 1893.

MEASURING APPARATUS OF LENGTH FOR THE USE OF INSPECTION.

No. I.

First Straight Measure.

Applicable to the Inspection of Straight Measures, Crooked Measures, and Fold Measures of Japanese System.

Material.....Brass.

GRADUATING.—The entire length is 3 shaku, two shaku of which is graduated on each 1 bu space, and the remaining one shaku, on each 5 rin space, and it is on the extremity of the latter that on both sides of 4 rin, 5 mō graduations are added to show the common difference.

No. II.

Second Straight Measure.

Used for the inspection of Metrical Straight Measures, Crooked Measures, and Fold Measures.

Material.....Brass.

GRADUATION.—The entire length is 1 meter graduated on each 1 millimeter space, and on one extremity, $\frac{1}{8}$ millimeter graduations are added on both sides of the space of one millimeter to show clearly the common difference.

No. III.

Third Kujira Shaku.

Is a scale used for measuring the length of Cloths, and 1 shaku it meets to the 1 shaku 2 Sun and 5 Bu of Common Measures, and is used for the inspection of Kujira Shaku.

Material.....Brass.

GRADUATION.—The whole length is 2 shaku of Kujira Shaku with a graduation on each 1 Bu space of Kujira Shaku, and on one extremity of it is graduated 2 rin degrees of Kujira Shaku for the reference of the common difference.

No. IV.

First Tape.

Is used for the inspection of Tapes and Chain Measures of Japanese System.

Material.....Steel.

GRADUATION.—The whole length measures 18 shaku, and 12 shaku of one of its extremities is graduated on each space of 1 Sun, while 6 Shaku of another extremity, on each space of 1 Bu, with 2 Rin degrees added on both sides of 4 Bu for the reference of common difference.

No. V.

Second Tape.

Used for the inspection of Tapes and Chain Measures of Metrical System.

Material.....Brass.

GRADUATION.—The whole length is 5 meters, and on one extremity of it, the space of 3 meters are graduated on each 5 centimeters, the following 1 meters, on each 5 millimeter, and the space of 1 meter following above, on each 1 millimeters. On this extremity, both sides of the degrees for the space of 15 millimeters is graduated with $\frac{1}{2}$ millimeter degree to show clearly the common difference.

MEASURING APPARATUS OF CAPACITY FOR THE INSPECTION.

No. VI.

First Measuring Apparatus of Capacity. Is used for the inspection of the capacity of the measuring instruments of Japanese System.

Material.....Brass.

KINDS.—1 Shaku, 2 Shaku, 5 Shaku, 1 Gō, 2 Gō, 2 Gō 5 Shaku, 5 Gō, 1 Shō, 2 Shō, 5 Shō, and 1 To : 11 kinds in all.

No. VII.

Second Measuring Apparatus of Capacity. Is used for the inspection of the capacity of Metrical System.

Material.....Brass.

KINDS.—1 Centimeter, 2 Centimeter, 5 Centimeter, 1 Decimeter, 2 Decimeter, 5 Decimeter, 1 Litre, 2 Litre, 5 Litre, 10 Litre, and 20 Litre : 11 kinds in all.

No. VIII.

Scales used for measuring the measuring apparatus of capacity. Is used for the inspection of the length, depth, and width of the Capacity Measures.

Material.....Brass.

KINDS.—First Measuring length used for Capacity Measures.

Second Measuring length used for Capacity Measures.

Third Measuring length used for Capacity Measures.

GRADUATION.—On one surface of No. 1 and No. 2 Measures used for capacity measures is engraved the diameters of all the circular measuring apparatus of capacity of Japanese System and their common differences, while on other surface the common differences and the diameters of all capacity measures of metrical System are engraved. No. 3 Scale used for the inspection of capacity measures has on one of its surface the engraved diameters of all square capacity measures of Japanese System and common difference, while on the other it is carved with the Length, Breadth and Depth of “Togai” with their common differences.

WEIGHT MEASURES USED FOR THE INSPECTION.

No. IX,

First Weight.

Is used for the inspection of the weight of Japanese System, and for the inspection of the capacity of capacity measures by the weight of water.

MATERIAL.—Upwards of 2 kwamme, Iron; from minimum to 2 fun, Aluminium; and others, all Brass.

KINDS.— $\frac{1}{10}$ th of Mō, $\frac{2}{10}$ th of Mō, $\frac{5}{10}$ th of Mō, 1 Mō, 2 Mō, 5 Mō, 1 Rin, 2 Rin, 5 Rin, 1 Fun, 2 Fun, 5 Fun, 1 Momme, 2 Momme, 5 Momme, 10 Momme, 20 Momme, 50 Momme, 100 Momme, 200 Momme, 500 Momme, 1 Kwan, 2 Kwan and 5 Kwan : 24 kinds in all.

No. X.

Second Weight.

Is used for the inspection of the capacity of capacity Measures and the Weight of Material System by the Water Weight.

MATERIAL.—Upward of 2 Kilogramme, Iron; from minimum to 5 decigramme, Aluminium; and all others, Brass.

KINDS.—1 Milligramme, 2 Milligramme, 5 Milligramme, 1 Centigramme, 2 Centigramme, 5 Centigramme, 1 Decigramme, 2 Decigramme, 5 Decigramme, 1 Gramme, 2 Gramme, 5 Gramme, 10 Gramme, 20 Gramme, 50 Gramme, 100 Gramme,

200 Gramme, 500 Gramme, 1 Kilogramme, 2 Kilogramme, 5 Kilogramme, 10 Kilogramme and 20 Kilogramme ; 23 kinds in all.

No. XI.

Large-sized Beam-Balance, Maximum 10 kwan, Minimum 5 fun, is used for the inspection of the weight and for the inspection of the capacity of the capacity measures by the weight of water.

No. XII.

Medium-sized Beam-Balance, Maximum 1 Kwan, Minimum 1 Rin, is used for the inspection of the weight, and for the inspection of the capacity of the capacity measures by the weight of water.

No. XIII.

Small-sized Beam-Balance, Maximum 50 Momme, Minimum 1/10th of 1 Mō, and is used for the inspection of the weight.

WEIGHTS AND MEASURES.

(Department L. Group 151. Class 865.)

APPARATUS OF WEIGHT MEASURING.

Heretofore the balance and the weights employed in Analytical Chemistry was mostly imported from Europe and the United States; but the considerable progress of the industrial arts of the country at the later times left no room for the dissatisfaction towards the application of those made in the Empire. The proof of it can be seen by the articles to be exhibited on this occasion.

No.	NAME OF WEIGHTS OR MEASURES MANUFACTURED.	VALUE.	NAME OF MANUFACTURERS.
		yen.	
1	Balance.	50.000	Tokio, Sato Yoshisaburo.
2	"	40.000	" "
3	"	95.000	" Moriya Sadakichi.
4	Weight.	10.009	" Sato Yoshisaburo.
5	"	8.000	" "
6	"	12.000	" Moriya Sadakichi.
7	"	12.000	" "

WEIGHTS AND MEASURES.

(Department H. Group 112. Class 706 and 710).

As the precise measurement weight can not be perceived by the measurement of Japanese Scale used in the Empire of old, the employment of plat form Scale and the Letter Weight had became prevalent lately, with the corresponding improvement in the art of their manufacture. But the inconvenience of their transportation impeded them to supersede completely the use of Japanese Scale and the investigation on the latter weight seems to have the omen of success. No. 4—No. 9 should prove this, *Kujira Shaku* is used in measuring cloths.

WEIGHTS AND MEASURES. (Class 706).

No.	NAME OF WEIGHT.	VALUE.	NAME OF MANUFACTURER.
		yen.	
1	Plat form Scale.	9.000	Tokyo, Sato Yoshisaburō.
2	"	25.000	Osaka, Yamamoto Seinosuke.
3	"	12.000	" "
4	Japanese Scale.	1.900	" "
5	"	1.024	" "
6	"	1.875	" "
7	"	1.290	" "
8	"	0.790	" "
9	"	0.683	" "
10	Box Measures & Togai.	6.330	Tokyo, Shiotsuka Genzō.
11	Straight Measure.	0.400	" Nakamura Asakichi.
12	"	0.300	" "
13	"	0.500	" "
14	"	0.200	" "
15	"	0.080	" Nakamura Asakichi.
16	Kujira Shaku.	0.080	" "
17	"	0.030	" "
18	Fold Measure.	0.130	" "
19	"	0.090	" "
20	Kujira Shaku.	0.070	Osaka, Yoshimato Toku.
21	"	0.120	" "
22	"	0.050	{ Kanagawa Prefecture.
			{ Suzuki Jiuichi.
23	"	0.120	" "

(Class 710).

No.	NAME OF MEASURES.	VALUE.	NAME OF MANUFACTURER.
1	Letter Weights.	yen. 7.500	Tokyo, Sato Yoshisaburo.
2	"	4.500	" "
3	"	3.000	" "
4	"	10.000	" Moriya Sadakichi.

MEASURERS. (Class 710).

In the measure used in drawing the bamboo measure is preferable as there is no bending, expansion, or contraction like brass measure seconding the temperature.

No.	NAME OF SCALE MEASURES.	VALUE.	NAME OF MANUFACTURER
24	Straight Measure.	yen. 2.000	Tokyo, Nakamura Asakichi.
25	"	0.800	" "
26	"	0.300	" "
27	"	0.080	" "
28	"	2.400	" "
29	"	1.200	" "
30	"	0.500	" "
31	"	1.000	" "
32	"	0.500	" "
33	"	0.200	" "
34	"	0.050	" "
35	"	1.000	" "
36	"	0.500	" "
37	"	0.200	" "
38	"	0.050	" "
39	"	0.160	" "
40	"	0.140	" "
41	"	0.040	" "
42	"	0.140	" "
43	"	0.120	" "
44	"	0.040	" "
45	"	0.500	" "
46	"	0.160	" "
47	"	0.080	" "
48	"	0.500	" "

No.	NAME OF SCARE MEASURES.	VALUE.	NAME OF MANUFACTURERS.
49	Straight Measure.	yen. 0.200	Tokyo, Nakamura Asakichi.
50	"	0.080	" "
51	"	0.500	" "
52	"	0.200	" "
53	"	0.060	" "
54	"	1.600	" "
55	"	0.800	" "
56	"	0.400	" "
57	"	1.400	" "
58	"	0.400	" "
59	"	0.200	" "
60	"	1.400	" "
61	"	0.400	" "
62	"	0.200	" "
63	"	0.340	" "
64	"	0.100	" "
65	"	0.060	" "
66	"	0.800	" "
67	"	0.360	" "
68	"	0.240	" "
69	"	0.250	" "
70	"	0.100	" "
71	"	0.060	" "
72	"	1.000	" "
73	"	0.400	" "
74	"	0.160	" "
75	"	0.800	" "
76	"	0.300	" "
77	"	0.140	" "
78	"	0.200	" "
79	"	0.120	" "
80	"	0.160	" "
81	"	0.100	" "
82	"	0.170	" "
83	"	0.110	" "
84	"	1.800	" "
85	"	2.000	" "
86	"	1.200	" "
87	"	1.200	" "
88	"	0 090	{ Kanagawa Prefecture. Suzuki Jiuichi.
89	"	0.800	" "
90	"	0.700	" "
91	"	0.070	Osaka, Yoshimato Tokn.
92	"	0.100	" "
93	"	0.080	" "
94	"	0.350	{ Kanagawa Prefecture. Suzuki Jiuichi.

Carpenter, Screen makers, Tub makers, joiners, etc., all use. The right angled measure. This measure is not only to measure the length, but, right-angled and inclinations calculated. It is not also used as rules.

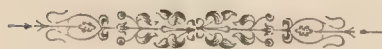
No.	NAME OF MEASURES.	VALUE.	NAME OF MANUFACTURERS.
95	Right-angled Measure.	yen. 2.250	Tokyo, Nakamura Asakichi.
96	"	1.650	" "
97	"	1.500	" "
98	"	0.350	" "
99	"	0.350	" "
100	"	1.000	Osuka, Yoshimoto Toku.
101	"	0.850	" "
102	"	1.100	" "
103	"	0.950	" "
104	Plat form Scale.	15.000	" Yamamoto Seinosuke.



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DETAILS

OF THE

INDUSTRIAL SPECIMENS.

SPECIMENS OF ENVELOPES, NOTE-PAPER AND FOLDED PAPER.

(H. Department, Group 89, Class 560.)

The envelopes and note-papers should be of strong nature, the papers manufactured at the Imperial Printing Bureau are strong and best suited for export purposes. The drawings and figures impressed upon them are in the newest style, much appreciated by the customers. The following arrangement will show that they are done by the noted painters.

Folded-papers are used in ceremonies and in sending presents from time immemorial. The different varieties are much more than shown here. In the present days, they are used in wrapping small articles and the way in which they are used in wrapping small articles and the way in which they are used is quite many.

TABLE OF ENVELOPES AND NOTE-PAPERS.

SYMBOL.	NUMBER.	VALUE OF ONE THOUSAND LEAVES.	SYMBOL.	NUMBER.	VALUE OF ONE THOUSAND LEAVES.
A	From No. 1 to No. 6	Yen. 8.25	M	From No. 1 to No. 6	4.400
B	„ No. 1 „ No. 7	9.35	N	„ No. 1 „ No. 6	5.500
C	„ No. 1 „ No. 7	8.25	O	„ No. 1 „ No. 6	7.700
D	„ No. 1 „ No. 6	9.35	P	„ No. 1 „ No. 7	8.250
E	„ No. 1 „ No. 8	8.80	Q	„ No. 1 „ No. 5	6.600
F	„ No. 1 „ No. 6	8.25	R	„ No. 1 „ No. 5	7.150
G	„ No. 1 „ No. 6	5.15	S	„ No. 1 „ No. 5	6.050
H	„ No. 1 „ No. 4	6.05	T	„ No. 1 „ No. 5	6.600
I	„ No. 1 „ No. 6	6.05	U	„ No. 1 „ No. 5	4.950
J	„ No. 1 „ No. 5	12.50	V	„ No. 1 „ No. 5	5.500
K	„ No. 1 „ No. 6	5.50	W	„ No. 1 „ No. 5	10.450
L	„ No. 1 „ No. 6	6.60	X	„ No. 1 „ No. 5	11.000

TABLE OF THE FORDINGS.

NUMBER.	NAMES.	VALUE ON EACH 100 LEAVES.
1	Genjō Mochi Fold.. .. .	Yen. 4.000
2	Hōzuki Fold	4.000
3	Genjō Mochi Fold.. .. .	4.000
4	Heishi Mechō	4.000
5	Incense Spoon, and Tong Fold	4.000
6	Salt Fold	4.000
7	Fan Fold	4.000
8	Senmai Fold	3.000
9	Incense fold	3.000
10	Kaorimono Fold	3.000
11	Incense Label Fold	4.000
12	Hawk Bill Fold	4.000
13	Incense Fold	4.000
14	Heishi Ochō	4.000
15	Incense Fold	4.000
16	Incense Spoon, and Tong Fold	4.000
17	Floval Fold.. .. .	4.000
18	Gold Fold	3.000
19	Coloured Papar Fold	4.000
20	Genjō Mochi Fold.. .. .	4.000
21	Hōzuki Fold	4.000
22	Incence Fold	3.000

COLLECTION OF NASHIJI.

(H. Department, Group 90, Class 567.)

Nashiji is the name given to one kind of gold lacquerings, principally applied to the inner side of boxes and under side of tables. There are many varieties and the difference in price is also great. At one sight the appearance being almost alike, and in transaction it is sometimes indiscriminately dealt with, causing disadvantages to both sides. Here the class and price are minutely shown.

TABLE OF THE VALUE AND VARIETIES OF NASHIJI.

[From No. 1 to 29 is gold, from 20 to 42 is silver, and from 43 to Upward is tin.]

No.	NAMES.	VALUE (each 1 Sun sq.)	
		Yen.	
1	Yakikin Gyōbu Nashiji	0.4600	
2	Yakikin Daiichi Nashiji	0.1287	
3	Yakikin Daini Nashiji	0.1287	
4	Yakikin Daisan Nashiji	0.1178	
5	Yakikin Kanoko Nashiji	0.1560	
6	Yakikin Tamamura Nashiji	0.0850	
7	Yakikin Kumo Nashiji	0.0850	
8	Yakikin Kasumi Nashiji	0.0850	
9	Yakikin Kiribaku Moyōiri Nashiji	0.3705	
10	Yakikin Tsune no san Nashiji	0.2106	
11	Yakikin Daisan no chū Nashiji	0.0632	
12	Yakikin Shōsan no chū Nashiji	0.0577	
13	Yakikin Daini Hirame Nashiji	0.2680	
14	Yakikin Daidai ichi Okihirame Nashiji	0.7528	
15	Yakikin Tsunenosan Makihirame Nashiji	0.6276	
16	Yakikin Daisan Okihirame Nashiji	0.7631	
17	Yakikin Shōsan Makihirame Nashiji	0.5174	
18	Kobankin Tsune no san Nashiji	0.5460	
19	Kobankin Shōsan Nashiji.. .. .	0.4420	
20	Kobankin Gyōbu Nashiji	0.3900	
21	Kobankin Daiichi Nashiji.. .. .	0.1025	
22	Kobankin Daini Nashiji	0.1027	
23	Kobankin Daisan Dzume Nashiji.. .. .	0.0975	
24	Kobankin Kumo Nashiji	0.0715	
25	Kobankin Tamamura Nashiji	0.0715	
26	Kobankin Kasumi Nashiji.. .. .	0.0715	
27	Kobankin Daisan no chū Nashiji.. .. .	0.0559	
28	Kobankin Shōsan no chū Nashiji	0.0507	
29	Gin Gyōbu Nashtji	0.1105	
30	Gin Daiichi Okihirame Nashiji	0.1430	
31	Gin Daisan Okihirame Nashiji	0.2015	
32	Gin Daini Okihirame Nashiji	0.0877	
33	Gin Daisan Makihirame Nashiji	0.0585	
34	Gin Tsune no san Makihirame Nashiji	0.0585	
35	Gin Shōsan Makihirame Nashiji	0.0520	
36	Gin Kanoko Nashiji	0.0936	
37	Gin Daisan Dzume Nashiji	0.0260	
38	Gin Kumo Nashiji.. .. .	0.0240	
39	Gin Tamamura Nashiji	0.0240	
40	Gin Kasumi Nashiji	0.0240	
41	Gin Daisan no chū Nashiji	0.0221	
42	Gin Shōsan no chū Nashiji	0.0214	
43	Suzu Tsune Nashiji	0.0071	
44	Suzu Momiji Moyōiri Nashiji	0.0137	
45	Suzu Kumo Nashiji	0.0134	
46	Suzu Kasumi Nashiji	0.0134	
47	Suzu Tamamura Nashiji	0.0134	
48	Suzu Chū Nashiji	0.0068	

COLLECTION OF METAL WORKS.

(H. Department, Group 93, Class 585.)

The art of alloying is very skilful in Japan from ancient times. There are many rare mixtures such as Shakudō (Nos. 21, 22, 23 and others) and Shibuichi (Nos. 24, 25, 26 and others), which are never known in Europe. Coloring has also a special nature, which shows and imparts beautiful appearance to the single or alloyed metals, as shown in No. 21 and upwards. With chisel and file in numerable figures are produced on it, as shown from No. 1.—No. 20.

No.	NAMES.	VALUE
		(1 sun sq.)
		Yen.
1	Yakikin No. 1 Nanako	7.425
2	Shakudō No. 1 Nanako	1.700
3	Silver and Shakudō Scale-figured No. 3 Nanako..	2.625
4	Gold-gilded on Silver No. 4 Nanako	3.845
5	Shakudō and Shibuichi Ishidatami No. 5 Nanako	2.500
6	Scarlet Copper No. 6 Nanako	1.000
7	Shibuichi Nijiu Nanako	1.275
8	Yakikin Botan Yujō	6.575
9	Shakudō Tate Yujō	1.250
10	Gindama Tsuki Yujō	1.660
11	Shakudō Shibagaki Yujō	1.300
12	Gold-gilded on silver stripe inlaid Yujō	1.980
13	Gold-gilded on silver Nami Yujō.. .. .	1.930
14	Silver Nata Ishime.. .. .	1.730
15	Shakudō Crape Ishime	1.200
16	Gold-gilded on Silver Chidori Ishime	1.930
17	Shakudō Oresaki Ishime	1.150
18	Shibuichi Chidori Ishime	0.725
19	Gold-gilded on Silver Nata Ishime	1.930
20	Brass Chidori Ishime	0.350
21	No. 1 Shakudō	1.550
22	No. 2 Shakudō	0.990
23	No. 3 Shakudō	0.710
24	No. 1 Shibuichi	1.128
25	No. 2 Shibuichi	0.926
26	No. 3 Shibuichi	0.522
27	Scarlet Copper	0.150
28	Brass	0.160
29	Kurumi Copper	0.150
30	Su Copper	0.140
31	Nashiji Copper	0.350
32	Brass	0.160
33	Kurumi Copper and Su Copper Mokume ..	0.750
34	Silver and Shakudō Mokume	1.150
35	Shakudō Scarlet-coloured Mokume	0.350
36	No. 1 Kawari Copper	0.160
37	No. 2 Kawari Copper	0.160
38	No. 3 Kawari Copper	0.160
39	No. 4 Kawari Copper	0.160
40	Wrought-iron Rust Colouring	0.180

VARIOUS STAGES IN THE MANUFACTURE OF CLOISONNÉ.

(H. Department, Group 93, Class 586.)

In the manufacture of cloisonnés sixteen stages are to be passed. No. 1 shows the pattern, No. 2 cells laid on groundwork, No. 3 solders pasted over, No. 4 solders heated, No. 5 enamel laid for the first time, No. 6 burnt for the first time, No. 7 enamel laid for the second time, No. 8 burnt for the second time, No. 9 enamel laid for the third time, No. 10 burnt for the third time, No. 11 enamel for the fourth time, No. 12 burnt for the fourth time, No. 13 roughly polished, No. 14 last touch, No. 15 last burning, No. 16 complete finish.

THE DIFFERENT COLORING OF CLOISONNE.

(H. Department, Group 93, Class 586.)

According to the nature of paints, the tinges of colors, of course, differ. In order to represent figures in enamel, all sorts of colors are to be used. This is the main differently with the manufacture of cloisonné. The colors here shown are 360 kinds, all of which are used in the manufacture. As to the price it all depends upon the execution of design and amount of labour, so it could not be shown here.

SPECIMENS OF GOLD AND SILVER THREAD.

(H. Department, Group 100, Class 625.)

Gold and silver thread is one of the handiworks, which is never produced in Europe. Even in this country, the place of manufacture is limited to Kyoto. Accordingly the amount of produce is very small, yet to show the real golden

or silver colour in the fabrics, it is necessarily resorted to. In late years it found the way to foreign market, and begins to be exported. Some threads are very fine while others are large ; the way they are used is quite many.

CATALOGUE OF THE GOLD AND SILVER THREAD.

No.	NAME.	SORT.	No. Two hundred times round a plank of 1 shaku 1 sun of kane measure make a Bundle	VALUE. Yen.
1	Gold-Thread.	(Yakihiro fun Gold) Thread (with core) 8 Bu (of cotton thread). gake.	One Bundle.	0.048
2	"	" 1 gake.	"	0.053
3	"	" 1½ "	"	0.058
4	"	" 2 "	"	0.064
5	"	" 2½ "	"	0.075
6	"	" 3 "	"	0.085
7	"	" 4 "	"	0.095
8	"	" 5 "	"	0.105
9	"	" 6 "	"	0.115
10	"	" 7 "	"	0.125
11	"	" 8 "	"	0.135
12	"	" 9 "	"	0.145
13	"	" 10 "	"	0.155
14	"	" 12 "	"	0.180
15	"	" Muzu.	"	0.210
16	"	" Omuzu.	"	0.240
17	"	" (Daidai muzu.)	"	0.270
18	"	" (Betsu muzu.)	"	0.300
19	"	" (Betsu omuzu.)	"	0.340
20	"	" (Mare muzu.)	"	0.380
21	"	(Yaki hon Gold) Thread (with core) 8 Bu (of cotton thread). gake.	"	0.165
22	"	" 1 gake.	"	0.180
23	"	" 1½ "	"	0.200
24	"	" 2 "	"	0.240
25	"	" 2½ "	"	0.290
26	"	" 3 "	"	0.330
27	"	" 4 "	"	0.410
28	"	" 5 "	"	0.460
29	"	" 6 "	"	0.500
30	"	" 7 "	"	0.550
31	"	" 8 "	"	0.600
32	"	" 9 "	"	0.640
33	"	" 10 "	"	0.700
34	"	" 12 "	"	0.820
35	"	" Muzu.	"	0.950

No.	NAME.	SORT.	No. Two hundred times round a plank of 1 shaku 1 sun of kane measure make a Bundle.	VALUE. Yen.
36	Gold-Thread.	{ Mekomi hon Gold Thread (with core of silk thread). }	8 Bu gake. } One Bundle.	0.210
37	"	"	1 gake.	0.280
38	"	"	1½ "	0.320
39	"	"	2 "	0.390
40	"	"	2½ "	0.400
41	"	"	3 "	0.460
42	"	"	4 "	0.580
43	"	"	5 "	0.670
44	"	"	6 "	0.790
45	"	"	7 "	0.870
46	"	"	8 "	0.980
47	"	"	9 "	1.080
48	"	"	10 "	1.180
49	"	"	12 "	1.400
50	"	"	Muzu.	1.800
51	"	"	Omuzu.	2.100
52	"	{ Ōaka hon Gold Thread (with core of silk thread). }	8 Bu gake. }	0.190
53	"	"	1 gake	0.250
54	"	"	1½ "	0.280
55	"	"	2 "	0.320
56	"	"	2½ "	0.360
57	"	"	3 "	0.400
58	"	"	4 "	0.500
59	"	"	5 "	0.570
60	"	"	6 "	0.680
61	"	"	7 "	0.780
62	"	"	8 "	0.860
63	"	"	9 "	0.970
64	"	"	10 "	1.070
65	"	"	12 "	1.230
66	"	"	{ Shin muzu. }	1.400
67	"	"	{ Shin ōmuzu. }	1.520
68	"	"	Omuzu.	1.730
69	"	{ Tsune hon Gold Thread (with core of cotton thread). }	8 Bu gake. }	0.145
70	"	"	1 gake.	0.165
71	"	"	1½ "	0.185
72	"	"	2 "	0.210
73	"	"	2½ "	0.240
74	"	"	3 "	0.300
75	"	"	4 "	0.380
76	"	"	5 "	0.415
77	"	"	6 "	0.450
78	"	"	7 "	0.500

No.	NAME.	SORT.	No. Two hundred times round a plank of 1 shaku 1 sun of kane measure make a Bundle.	VALUE. Yen.
79	Gold-Thread.	(Tsune hon Gold Thread (with core of silk thread). }	8 gake. } One Bundle.	0.540
80	"	" 9 "	" "	0.570
81	"	" 10 "	" "	0.620
82	"	" 12 "	" "	0.710
83	"	" Muzu.	" "	0.850
84	"	" Ōmuzu.	" "	0.950
85	"	{ Fun Gold Thread (with core of cotton thread). }	8 Bu gake. }	0.045
86	"	" 1 gake.	" "	0.050
87	"	" 1½ "	" "	0.055
88	"	" 2 "	" "	0.060
89	"	" 2½ "	" "	0.070
90	"	" 3 "	" "	0.080
91	"	" 4 "	" "	0.090
92	"	" 5 "	" "	0.100
93	"	" 6 "	" "	0.110
94	"	" 7 "	" "	0.120
95	"	" 8 "	" "	0.130
96	"	" 9 "	" "	0.140
97	"	" 10 "	" "	0.150
98	"	" 12 "	" "	0.175
99	"	" Muzu.	" "	0.205
100	"	" Ōmuzu.	" "	0.230
101	"	{ Daidai muzu. }	" "	0.260
102	"	{ Betsu muzu. }	" "	0.290
103	"	{ Betsu ōmuzu }	" "	0.330
104	"	{ Mare muzu. }	" "	0.370
105	Hira Gold Thread.	{ Yaki hon Kin Ryōmen hira. }	{ Length, 1 shaku 5 sun 5 bu. Breadth, 2 shaku 7 sun. }	" 1.780
106	"	{ Tsuneiro hon Kin Riōmen hira. }	" "	" 1.520
107	"	{ Yaki hon Kin hon Gin Ryōmen hira. }	" "	" 1.050
108	"	{ Fun Kin Ryō- men hira. }	" "	" 0.310
109	"	{ Fun Kin hon Gin Ryōmen hira. }	" "	" 0.300

No.	NAME.	SORT.	No. Two hundred times round a plank of 1 shaku 1 sun of kane measure make a Bundle.	VALUE. Yen.
110	Hira Gold Thread.	{ Hon Gin Ryō- men hira. }	{ Length, 1 shaku 5 sun 5 bu. Breadth, 2 shaku 7 sun. }	One Bundle. 0.290
111	"	{ Yaki hon Kin hira. }	"	" 0.670
112	"	{ Tsuneiro hon Kin hira. }	"	" 0.590
113	Silver Thread.	{ Hon Silver Thread (with core of cotton thread). }	{ 8 Bu gake. }	" 0.045
114	"	"	1 gake.	" 0.050
115	"	"	1½ "	" 0.055
116	"	"	2 "	" 0.060
117	"	"	2½ "	" 0.070
118	"	"	3 "	" 0.080
119	"	"	4 "	" 0.090
120	"	"	5 "	" 0.100
121	"	"	6 "	" 0.110
122	"	"	7 "	" 0.120
123	"	"	8 "	" 0.130
124	"	"	9 "	" 0.140
125	"	"	10 "	" 0.150
126	"	"	12 "	" 0.175
127	"	"	Muzu.	" 0.205
128	"	"	Omuzu.	" 0.230
129	"	"	{ Daidai muzu. }	" 0.260
130	"	"	{ Betsu muzu: }	" 0.290
131	"	"	{ Betsu omuzu. }	" 0.330
132	"	"	{ Mare muzu. }	" 0.370
133	{ Coloured Metal Thread. }	Bronze Coloured.	8 Bu gake.	" 0.045
134	"	"	1 gake.	" 0.050
135	"	"	1½ "	" 0.055
136	"	"	2 "	" 0.060
137	"	"	2½ "	" 0.070
138	"	"	3 "	" 0.080
139	"	"	4 "	" 0.090
140	"	"	5 "	" 0.100
141	"	"	6 "	" 0.110
142	"	"	7 "	" 0.120
143	"	"	8 "	" 0.130
144	"	"	9 "	" 0.140
145	"	"	10 "	" 0.150
146	"	"	12 "	" 0.175

No.	NAME.	SORT.	No. Two hundred times round a plank of 1 shaku 1 sun of kane measure make a Bundle.	VALUE. Yen.
147	{ Coloured Metal Thread. }	Bronze Coloured	.. Muzu.	One Bundle. 0.205
148			.. Ōmuzu.	0.230
149			{ Daidai }	0.260
150			{ Muzu. }	0.290
151			{ Betsu muzu. }	0.330
152			{ Betsu ōmuzu. }	0.370
153		Red Coloured	.. 8 Bu gake.	0.045
154			1 gake.	0.050
155			1½ ..	0.055
156			2 ..	0.060
157			2½ ..	0.070
158			3 ..	0.080
159			4 ..	0.090
160			5 ..	0.100
161			6 ..	0.110
162			7 ..	0.120
163			8 ..	0.130
164			9 ..	0.140
165			10 ..	0.150
166			12 ..	0.175
167			Muzu.	0.205
168			Ōmuzu.	0.230
169			{ Daidai muzu. }	0.260
170			{ Betsu muzu. }	0.290
171			{ Betsu ōmuzu. }	0.330
172			{ Mare muzu. }	0.370
173		Uguisu Iro	.... 8 Bu gake.	0.045
174			1 gake.	0.050
175			1½ ..	0.055
176			2 ..	0.060
177			2½ ..	0.070
187			3 ..	0.080
179			4 ..	0.090
180			5 ..	0.100
181			6 ..	0.110
182			7 ..	0.120
183			8 ..	0.130
184			9 ..	0.140
185			10 ..	0.150
186			12 ..	0.175
187			Muzu.	0.205
189			Ōmuzu.	0.230

No.	NAME.	Sort.	No. Two hundred times round a plank of 1 shaku 1 sun of kane measure make a Bundle.	Value.
189	{ Coloured Metal Thread. }	Uguisu Iro.....	{ Daidai muzu. }	Yen. 0.260
190	"	"	{ Betsu muzu. }	" 0.290
191	"	"	{ Betsu ōmuzu. }	" 0.330
192	"	"	{ Mare muzu. }	" 0.370
193	"	Purple Coloured. 8 Bu gake.	"	0.045
194	"	" 1 gake.	"	0.050
195	"	" 1½ "	"	0.055
196	"	" 2 "	"	0.060
197	"	" 2½ "	"	0.070
198	"	" 3 "	"	0.080
199	"	" 4 "	"	0.090
200	"	" 5 "	"	0.100
201	"	" 6 "	"	0.110
202	"	" 7 "	"	0.120
203	"	" 8 "	"	0.130
204	"	" 9 "	"	0.140
205	"	" 10 "	"	0.150
206	"	" 12 "	"	0.175
207	"	" Muzu.	"	0.205
208	"	" Ōmuzu.	"	0.230
209	"	" { Daidai muzu. }	"	0.260
210	"	" { Betsu muzu. }	"	0.290
211	"	" { Betsu ōmuzu. }	"	0.330
212	"	" { Mare muzu. }	"	0.370
213	"	Blue Coloured . . 8 Bu gake.	"	0.045
214	"	" 1 gake.	"	0.050
215	"	" 1½ "	"	0.055
216	"	" 2 "	"	0.060
217	"	" 2½ "	"	0.070
218	"	" 3 "	"	0.080
219	"	" 4 "	"	0.090
220	"	" 5 "	"	0.100
221	"	" 6 "	"	0.110
222	"	" 7 "	"	0.120
223	"	" 8 "	"	0.130
224	"	" 9 "	"	0.140
225	"	" 10 "	"	0.150
226	"	" 12 "	"	0.175
227	"	" Muzu.	"	0.205
228	"	" Ōmuzu.	"	0.230
229	"	" { Daidai Muzu. }	"	0.260

No.	NAME.	Sort.	No. Two hundred times round a plank of 1 shaku 1 sun of kane measure make a Bundle	VALUE.
230	{ Coloured Metal Thread. }	Blue Coloured..	{ Betsu muzu. }	Yen. 0.290
231	"	"	{ Betsu ōmuzu. }	" 0.330
232	"	"	{ Mare muzu. }	" 0.370
233	"	{ Yellow-green } { Coloured. }	.. 8 Bu gake.	" 0.045
234	"	"	1 gake.	" 0.050
235	"	"	1½ "	" 0.055
236	"	"	2 "	" 0.060
237	"	"	2½ "	" 0.070
238	"	"	3 "	" 0.080
239	"	"	4 "	" 0.090
240	"	"	5 "	" 0.100
241	"	"	6 "	" 0.110
242	"	"	7 "	" 0.120
243	"	"	8 "	" 0.130
244	"	"	9 "	" 0.140
245	"	"	10 "	" 0.150
246	"	"	12 "	" 0.175
247	"	"	Muzu.	" 0.205
248	"	"	Ōmuzu.	" 0.230
249	"	"	{ Daidai. muzu. }	" 0.260
250	"	"	{ Betsu muzu. }	" 0.290
251	"	"	{ Betsu ōmuzu. }	" 0.330
252	"	"	{ Mare muzu. }	" 0.370

SPECIMENS OF ORNAMENTAL CORD-KNOTS.

(H. Department, Group 100, Class 632.)

The Cord-Knots were used from ancient time on literary as well as military articles, used in ornaments. Adding the beautiful appearance to the things to look upon, it would be suitable to be used on chairs, curtains and other things of furniture it will be quite an improvement. The specimens are open to the reference of visitors.

No.	NAME.	VALUE OF ONE.
		Yen.
1	Kamashiki Knots	0.675
2	Kiri Knots	0.200
3	Sweet Flag Knots	0.300
4	Keman Knots	0.180
5	Tobutsu Two-fold Net Knots	0.300
6	Kojima Kesa Knots	0.440
7	Crysanthemum flower Knots	0.450
8	Cherry blossom Knots	0.180
9	Sangai matsu Knots	0.200
10	Mokukwagata Knots	0.375
11	Agemaki Doshin Knots	0.375
12	Takara Knots	0.375
13	Koku Neo Knots	0.450
14	Haorio Knots	0.150
15	Katabami Knots	0.150
16	Tea-pots Chichio Knots	0.195
17	Round Fan shaped Knots	0.270
18	Tobutsu Butterfly Knots	0.120
19	Kake Knots	0.120
20	Kano Knots	0.225
21	Kakaobi Knots	0.225
22	Chatsubo-o Knots	0.180
23	Nadeshiko Knots	0.300
24	Rokuyo Knots	0.450
25	Female Tobutsu Tori Knots	0.180
26	Male	0.180
27	Mosquito-nets Suspension Cord Knots	0.180
28	Mitsu Awaji Knots	0.270
29	Dragon Fly shaped Knots	0.180
30	Kikyo Flower Knots	0.225
31	Chatsubo Chichio Knots	0.225
32	Hoop Knots.. .. .	0.225
33	Hiogi Knots	0.195
34	Shippo Knots	0.195
35	Masquito-net Suspension Cord Knots	0.180
36	Yukimochi Zasa Knots	0.300
37	Dragon Fly Knots.. .. .	0.225
38	Sweet Flag Knots.. .. .	0.225
39	Dragon Fly Knots.. .. .	0.300
40	The Morning Glory Flower Knots	0.225
41	Cicada Knots	0.180
42	Tortoise Knots	0.300
43	Asao Knots.. .. .	0.150
44	Mokko Knots	0.225
45	Chatsubo Nagao Knots	0.300
46	Okina Knots	0.270
47	Lily Flower Knots	0.300
48	Omoi Knots	0.150
49	Tobutsu Butterfly Knots	0.270
50	Crane Knots	0.225
51	Omogai Knots	0.150
52	Tōbutsu Butterfly Knots	0.450
53	Yaye Kikyō Knots	0.420
54	Omoi Knots	0.300

No.	NAME.	VALUE OF ONE.
		Yen.
55	Bird Knots.. .. .	0.180
56	Sazanka Knots	0.150
57	Tobutsu Takara Knots	0.225
58	Kuyō Knots	0.525
59	Shirikai Knots	0.150
60	Arai Kutsuwa Hanakawa Knots	0.180
61	Muchi-no-o Knots	0.120
62	Kusafuji Knots	0.330
63	Chatsubo Chichi-o Knots	0.150
64	Chatsubo Chichi-o Knots	0.270
65	Suwo Munehimo Knots	0.150
66	Sasa-no-ha Knots	0.150
67	Tobutsu-Kiku Knots	0.375
68	Matsu Knots	0.150
69	Fuji Flower Knots.. .. .	0.420
70	Yaye Chrysanthemum Knots	0.300
71	Plum-tree Flower Knots	0.225
72	Fuji Knots	0.180
73	Hokkeshiū Kesa Knots	0.600
74	Doshin Knots	0.090
75	Nagao Knots	0.150
76	Futatsuba Knots	0.225
77	Azuma Knots	0.150
78	Chatsubo Chichi-o Knots	0.300
79	Fuji Knots	0.300
80	Tsubaki Flower Knots	0.300
81	Usagi Kashira Knots	0.120
82	Tobutsu Chrysanthemum Flower Knots	0.330
83	Hojiū Knots	0.150
84	Agemaki Knots	0.150
85	Kusafuji Knots	0.225
86	Muchi Knots	0.120
87	Chatsubo Chichi-o Knots	0.225
88	Chatsubo Chichi-o Knots	0.225
89	Two-fold Kukurikiri Fringe	0.225
90	One-fold Kukurikiri Fringe	0.450
91	Hitoe Kukurikiri Fringe	0.225
92	Atamagakari Yorikaeshi Fringe	0.450
93	Kanamonotsuki Yorikaeshi Fringe	0.520
94	Atama Amiage Yorikaeshi Fringe	0.225
95	Natsumegata Atamakagari Yorikaeshi, Fringe	0.450
96	Metal Ornaments Attached Yorikaeshi Fringe	0.525

SPECIMENS OF FANS TO BE USED IN CEREMONIES.

(H. Department, Group 106, Class 667.)

No. 1 is the imitation of Akome fan, which is said to be made by the wife of Taira no Atsumori, to present it to Buddha, to pray for the happiness of her husband. The

original is treasured in the Mikagedo of Kyoto. No. 2 is the treasure of the Mikagedo also, which is the imitation of the fan belonging to the Emperor Gosakuramachi (1763—1813). No. 3 those used in the Imperial Court. No. 4 by nobles, No. 5 by priest. The shapes and figures of those fans, if adapted to the export articles, there is no doubt, some improvement will be made.

No.	NAME.	VALUE A PIECE.
1	Akome Fan.. .. .	Yen. 25.000
2	Hi Ōgi	15.000
3	Hi Ōgi	15.000
4	Hi Ōgi	0.500
5	Hi Ōgi	0.500

SPECIMENS OF FANS FOR HOME USE.

(H. Department, Group 106, Class 667.)

The fans numbered 6, 8, 11 are used by nobles, Nos. 7, 9, 10 by priest, Nos. 12, 13 by samurai, No. 14 in the time of court foot ball, No. 15 in the time dancing, No. 16 in the time of war (in camp.), No. 17 in ordinary time (in peace).

Round Fans are generally used without classical forms.

FAN.

No.	NAME.	VALUE OF A PIECE.
6	Chūkei	Yen. 3.000
7	Chūkei	2.500
8	Summer Fans	2.000
9	Summer Fans	1.500
10	Setsu do Fans	0.800
11	Palace Fans	1.200
12	Palace Fans	0.500
13	Kodenchiū	0.200
14	Meniawari Fans	2.000
15	Dance Fans.. .. .	3.000
16	Military Fans	3.500
17	Thin Ribbed Fans	0.100

ROUND FANS.

No.	VALUE OF A PIECE.	No.	VALUE OF A PIECE.	No.	VALUE OF A PIECE.
	Yen.		Yen.		Yen.
1	1.500	7	0.180	13	0.100
2	1.600	8	0.150	14	0.040
3	1.000	9	0.250	15	0.120
4	0.380	10	0.015	16	0.040
5	0.060	11	0.150	17	0.100
6	0.060	12	0.100	18	0.150

SPECIMENS OF FANS FOR EXPORT.

(H. Department, Group 100, Class 667.)

As for the revolution of fans it will be convenient if the order is followed.

The fans from No. 1 to No. 13 have prevailed during 1870—78. During that time the outside ribs of white bamboo were painted black with gold lacquering on them, or the ribs were made of bones, or the colour of paper was changed. But as to the shape and size there were no great change. In about 1879—1880 the modification of priests' fan commenced but the old shape yet remained. In about 1883—1884 dancing fans began to be imitated and old shape began to disappear and almost all fans were ornamented with thread. About 1887 the great ribs were made into cloven shape and breadth was widened. (*The old shaped fans having 30 ribs, of which were lessened to 8 or 6.*) The cloven ribs were again divided to 3 or 4 branches; but in the present days, the narrow breadths prevail.

The round fan came into fashion since 1877 and there is not much change. In the following price list, the fans to be sold in more than one hundred are given.

No.	VALUE OF A PIECE.	No.	VALUE OF A PIECE.	No.	VALUE OF A PIECE.
	Yen.		Yen.		Yen.
1	0.045	25	0.150	49	0.830
2	0.055	26	0.200	50	0.300
3	0.050	27	0.220	*51	0.055
4	0.050	28	0.200	52	0.018
5	0.060	29	0.395	53	0.0038
6	0.120	30	0.270	54	0.0050
7	0.080	31	0.085	55	0.040
8	0.150	32	0.170	56	0.075
9	0.070	33	0.100	57	0.040
10	0.135	34	0.100	58	0.045
11	0.060	35	0.250	59	0.035
12	0.500	36	0.280	60	0.200
13	0.300	37	0.250	61	0.100
14	0.180	38	0.130	62	0.035
15	0.135	39	0.300	63	0.120
16	0.135	40	0.190	64	0.075
17	0.180	41	0.190	65	0.120
18	1.300	42	0.270	66	0.060
19	0.050	43	0.200	67	0.050
20	0.180	44	0.330	78	0.065
21	0.300	45	0.300	69	0.070
22	0.300	46	0.600	70	0.065
23	0.100	47	0.530		
24	0.070	48	0.300		

* The figures of 51—70 are the values of Round Fans.

SPECIMENS OF FIGURED LEATHERS.

(H. Department, Group 110, Class 702.)

In the leathers the figures, pictures or plaids are impressed, mostly used in the articles of war, and in pouches. From No. 1 to 60 are used in the articles of war, and from 60 to 90 for pouches.

No.	NAME.	VALUE (1 SUN SQ.)
		Yen.
1	Tempiō Leather	0.010
2	"Hachiman" Letter Figured Leather	0.010
3	Shōhei Leather	0.010
4	Lion Round Figured Leather	0.010
5	Round Floral Figured Leather	0.010
6	Hō-ō Round Figured Leather	0.010
7	Lion Figured Leather	0.010
8	Fudōson Figured Leather	0.010
9	Lion Round Figured Leather	0.010

No.	NAME.	VALUE (1 SUN SQ.)
		Yen.
10	Round Figured Picture Leather	0.010
11	Round Floral Figured Leather	0.010
12	Round Floral Figured Leather	0.010
13	Coloured Katsumi Leather	0.010
14	Thunder Figured Leather	0.010
15	Floral Diamond-shaped Figured Leather	0.010
16	Tortoise-shell Shape Figured Leather	0.010
17	Murasaki Leather	0.010
18	Shigeme Knot Leather	0.010
19	Purple Yuwata Leather	0.010
20	Black Yuwata Leather	0.010
21	Yuwata Leather	0.010
22	Variagated Colours Leather	0.010
23	Rope-like Surface Leather	0.010
24	Knotted Rope-like Surface Leather	0.010
25	Okatsumi Leather	0.010
26	Purple Brocade Leather	0.013
27	Tea-coloured Butterfly Figured Leather	0.010
28	Brocade Leather	0.010
29	Small Cherry Flower Figured Leather	0.010
30	Coloured Cherry Flower Figured Leather	0.010
31	Black Small Cherry Flower Figured Leather	0.010
32	Minute Butterfly and Birds Figured Leather	0.010
33	Kakutsunagata Shōbu Leather	0.015
34	Sugitachi Shōbu Leather	0.015
35	Rogan Shōbu Leather	0.015
36	Mapple-tree and Deer Figured Shōbu Leather	0.015
37	Horse Figured Shōbu Leather	0.015
38	Tomoe Figured Shōbu Leather	0.015
39	Butterfly and Birds Figured Leather	0.015
40	Shida Figured Leather	0.010
41	Omodaka Figured Leather	0.010
42	Tea-coloured Katsumi Figured Leather	0.010
43	Cherry and Water Figured Leather	0.010
44	Diamond-shaped Chrysanthemum Small Figured Leather	0.010
45	Tate Waku Cloud Figured Leather	0.010
46	Ooshiai Chrysanthemum Figured Leather	0.010
47	Wave Figured Leather	0.010
48	Buff-coloured Birds and Flower Figured Leather	0.010
49	Yukiwa Figured Leather	0.010
50	Buff-coloured Old Figured Leather	0.010
51	Chrysanthemum and Kiri Figured Leather	0.010
52	Buff-coloured Chrysanthemum Figured Leather	0.010
53	Waves and Chidori Figured Leather	0.010
54	Large Quail Shibori Leather	0.250
55	Tea-coloured Quail Shibori Leather	0.250
56	Small Quail Shibori Leather	0.250
57	Tea-coloured Rope-like Surface Quail Shibori Leather	0.250
58	Uzuramaki Leather	0.130
59	Coloured Pine, Bamboo, and Pine Tree Figured Leather	0.010
60	Shokkōgata Figured Leather	0.010
61	Peony Flower Figured Leather	0.010
62	Coloured Oshiai Chrysanthemum Figured Leather	0.015
63	Tatewaku Floral Round Figured Leather	0.016

No.	NAME.	VALUE (1 SUN SQ.)
		Yen.
64	Coloured Kodomoe Figured Leather.. ..	0.013
65	Coloured Tomoe Figured Leather	0.013
66	Ancient Figured Leather	0.013
67	Round Fan Sarasa Figured Leather.. ..	0.013
68	Lengthwise Striped Figured Leather	0.013
69	Diamond-shaped Figured Leather	0.013
70	Coloured Cloud Hō-ō Figured Leather	0.013
71	Tea-coloured Flower and Bird Sarasa Figured Leather ..	0.014
72	Tea-coloured Ancient Figured Leather	0.025
73	Tea-coloured Ancient Figured Leather	0.025
74	Tea-coloured Hō ō Figured Leather.. ..	0.025
75	Old Figured Leather	0.025
76	Kikusui Figured Leather	0.020
77	Waves and Chidori Figured Leather	0.020
78	Old Floral Figured Leather	0.020
79	Water and Rabbit Figured Leather	0.020
80	Water and Tomoe Figured Leather	0.014
81	Kasumi and Chidori Figured Leather	0.014
82	Flower Collection Picture Leather	0.020
83	Kusudama Picture Leather	0.020
84	Conch-shell Collection Picture Leather	0.020
85	Shikishi Picture Leather	0.020
86	Buddha Picture Figured Leather	0.020
87	Hiakumin-shu Picture Leather	0.020
88	Grass Flowers Pictorial Leather	0.020
89	Toys Pictorial Leather	0.020
90	Fan Paper Picture Leather	0.020

SPECIMENS OF METALLIC NETTINGS.

(H. Department, Group 117, Class 742.)

The metallic nettings are greatly used, and the manufactures are accordingly extensive. Of late years architectural changes gradually encroaching, the stoves began to be set and the necessity of stove screen were felt, the demand for the nettings consequently increased. The most substantial and comely ones are shown here below.

No.	VALUE (1 Sun sq.)	No.	VALUE (1 Sun sq.)	No.	VALUE (1 Sun sq.)
	Yen.		Yen.		Yen.
1	0.095	15	0.095	29	0.095
2	0.070	16	0.095	30	0.095
3	0.095	17	0.095	31	0.095
4	0.095	18	0.095	32	0.070
5	0.095	19	0.095	33	0.095
6	0.070	20	0.040	34	0.020
7	0.095	21	0.020	35	0.040
8	0.070	22	0.040	36	0.020
9	0.095	23	0.095	37	0.095
10	0.095	24	0.095	38	0.095
11	0.095	25	0.095	39	0.020
12	0.095	26	0.040	40	0.020
13	0.070	27	0.020	41	0.095
14	0.070	28	0.095	42	0.020

SPECIMENS OF JOINTS IN WOOD WORKS.

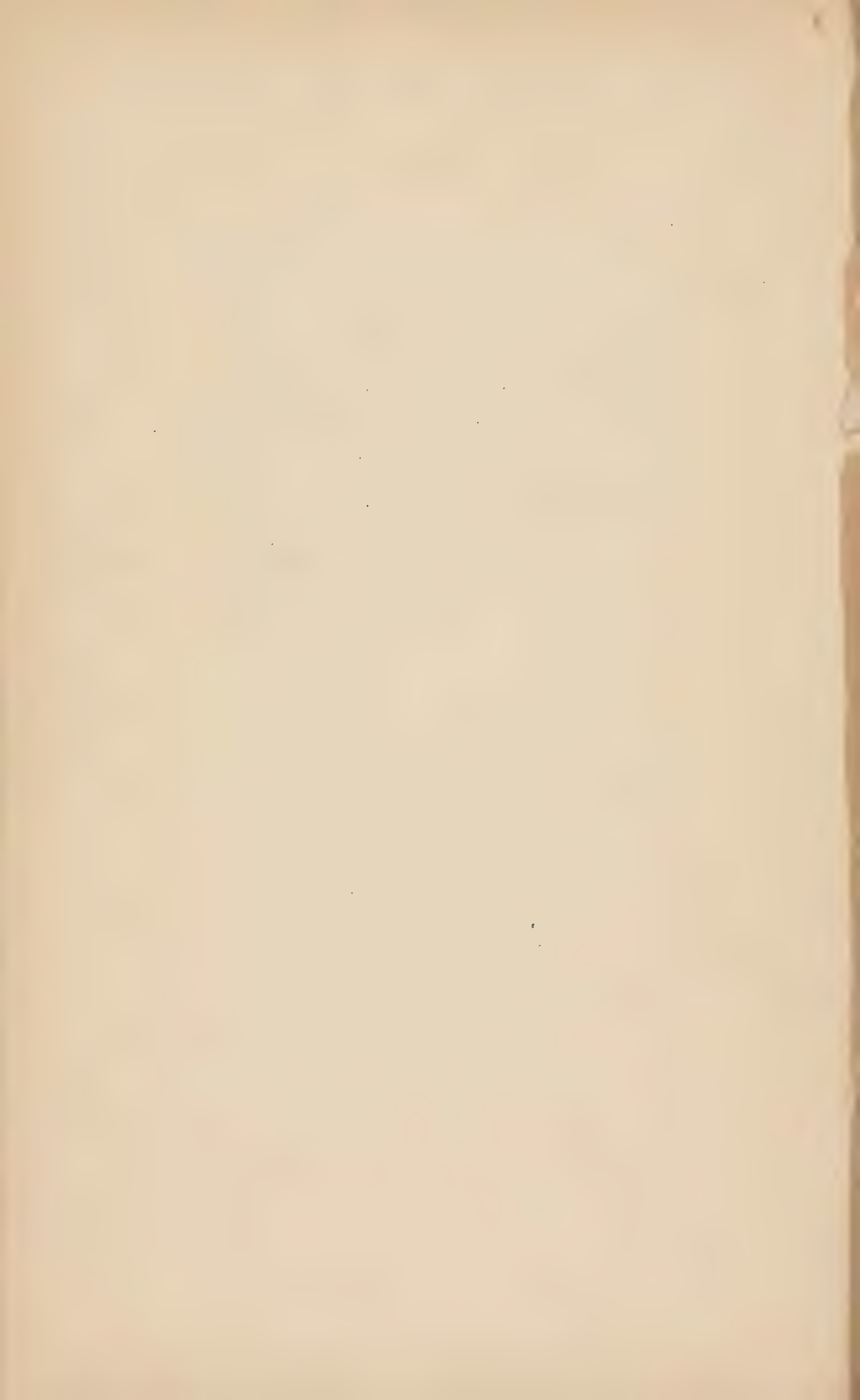
(H. Department, Group 117.)

The joints are the most important part in the wood-works. The strength of boxes, tables, door leafs, and frame works etc. depends upon this. The way in which they are applied to is given below, but the price cannot be fixed as it varies according to the size and nature of timbers.

No.	NAME OF JOINTS.	PURPOSE.
1	Chigiri Uchi Hozo.. ..	Boxes.
2	Ippō Tadzuna Hozo	Braziers.
3	Uchi Hozo	Boxes.
4	Masu Hozo.. ..	Small Boxes.
5	Iri Wa	Boxes.
6	Chigiri Hozo	Braziers.
7	Gowai Hozo Iri Wa	Boxes.
8	Orimawashi Chigiri Hozo.. ..	Braziers.
9	Masugumi Hozo	Braziers.
10	Uchinuki Keshi Hozo	Boxes.
11	Orimawashi Yahazu Hozo.. ..	Braziers.
12	Shiinomi Hozo	Small Boxes.
13	Kudaki Aribō Hashibami	Shelf (Lacquered).
14	Uchi Hozo Koguchi Hashibami	Selves (Lacquered).
15	Arizon Ura Hashibami	Kendon (box) and Tables.
16	Uchi Hozo Hashibami	{ All kinds of doors which open on hinges.

No.	NAME OF JOINTS,	PURPOSE.
17	Ichimai Hozo Bintadome	Katamen door frame.
18	Menkoshi Uchikomi Nimai Hozo ..	Door Frames.
19	{ Shikisan Nimai Hozo Uchidashi Tsuba- dome }	Door Kamachi Surizan.
20	Katamen Hokodome	Frames.
21	Marudome Nimai Hozo	Frames.
22	Sammai Uchidashi Hozo Mengoshi ..	Door Frames.
23	Uchidashi Mengoshi Nimai Hozo ..	Door Frames.
24	Ichimai Kawa Hozo Hakodome	Frames.
25	Marudome Nimai Hakoikaki	Frames.
26	Uwaba Menkoshi Iri Wa Nimai Hozo ..	Fire place Frames.
27	Iri Wa Aridome	Fire place Frames.
28	Marudome Uchikudaki Ari	Frames.
29	Dai Wa Hozo Hana Aridome	Rings of Stands.
30	Nimai Kama Mendome	Door Frames.
31	Ryomen Ichimai Hozo Hakodome ..	Door Frames.
32	Nimai Kama Hozo Mendome	Frames.





EXPLANATORY NOTES

ON THE

EXHIBITS

TO THE

→WORLD'S+COLUMBIAN+EXPOSITION←

AT

CHICAGO, U. S. A.

1893.



CENTRAL METEOROLOGICAL OBSERVATORY

OF JAPAN.

TOKIO.

INTRODUCTION.

The Central Meteorological Observatory of Japan was founded in 1875 in the Section of Land Survey of the Geographical Bureau, Home Department at *Tokio*. After undergoing several vicissitudes, the Observatory became independent on August 3rd 1887 and was placed under a direct supervision of the Minister of State for Home Affairs, authorized by the Imperial Ordinance No. XLI regarding meteorological observatory and stations; henceforth its administrative organization was promulgated by the Imperial Ordinance No. CLVI on August 2nd 1890. As prescribed in the later notification, the Central Meteorological Observatory controls meteorological affairs of the Empire, takes charge of the investigation of its meteorology and issues weather forecasts and storm warnings.

The operations of the Observatory are divided into three branches, viz., Service of Observations, Service of Statistics and Service of Indications.

The business to be transacted in the service of Observations is the following :

- Tokio meteorological observations,
- Earthquake observations,
- Observations of atmospheric electricity,
- Observations of terrestrial magnetism,
- Examinations of micro-organisms and impurities in air,
- Verifications of meteorological instruments.

The Service of Statistics investigates and prepares the following reports :

- Meteorological reports of stations,
- Meteorological reports of lighthouses,
- Meteorological reports of ships,
- Reports on earthquakes,
- Reports on precipitation and temperature at minor stations,
- Reports on thunderstorm,
- Reports on phenology.

In the Service of Indications the following business is performed :

Weather forecasts,
Storm warnings,
Meteorological signals.

Our present high officials are

Director :

Titular Meteorologist, K. Kobayashi.

Chief of the Service of Statistics :

Titular Meteorologist, K. Nakamura, *Rigakushi*.

Chief of the Service of Indications :

Titular Meteorologist, Y. Wada, *Rigakushi*.

Chief of the Service of Observations :

Titular Meteorologist probationer, H. Masato.

The Exhibits of the Observatory to the World's Columbian Exposition of Chicago are as follows :

Organization of the meteorological system in Japan.

Diagram showing the increase of meteorological stations in Japan.

Chart of meteorological and signal stations and lighthouses (reporting meteorological observations) of Japan.

Report of the meteorological observations at Tokio, 1876-1890.

Report of the meteorological observations in Japan, 1886-1890.

Report on earthquake observations in Japan, 1885-1890.

Specimen of Tri-daily Weathermaps.

Reports on the areas of low and high pressure in Japan, 1883-1890.

Charts showing seasonal distributions of air pressure and wind over Japan.

Charts showing seasonal distributions of air temperature and weather over Japan.

Charts showing seasonal distributions of amount of precipitation over Japan.

Charts showing frequency of earthquakes in Japan, the great earthquakes of *Kumamoto* and *Mino-Owari*.

The climate of Japan.

Report on high level meteorological observations in Japan.

I. Organization of the Meteorological system in Japan.

It is mentioned in a certain official record the regular observations once a day were commenced in August of the year 1835 at the Government Astronomical Observatory in *Yedo* (namely Tokio) and that the instruments used were only the barometer and thermometer which have been presented from the Dutch Government to the *Shogun* of that day; it is perhaps the first instrumental meteorological observations made in our country. Unfortunately all the results of these valuable observations were missed, by the commotion of the Great Restoration of *Meiji* Era, thereupon as we have considered it proper to count the outset of our meteorological affairs from the year 1872, this volume has been prepared so as to summarize an account of all the facts and events happened on our meteorological works in the course of twenty one years, 1872-1892. In this not a long period, all things have progressed notably in our country; especially on the meteorological works, despite the business quite newly founded, has been made a noteworthy improvement now-a-days. All the laws and rules concerning the methods and calculations of observations and reports, and the organizations of the Central Observatory as well as of Provincial Stations are also contained in this volume.

Among historical account of our Observatory the followings are the most important:

1875, 1st June: Establishment of the Observatory.

1877, 1st April: Commencement of international simultaneous observations.

1882, 1st July: Adoption of metric system.

1883, 16th February: Opening of weather telegraphy once a day and weathermaps first published.

1883, 26th May: Warning telegraphs first issued.

1883, 19th July: Rules for storm signals notified.

1883, 12th August: Foreign telegrams received for the first time.

1883, 1st November: First signal mast erected at *Shinagawa*, (near Tokio).

1884, 1st July: Commencement of tri-daily meteorological telegrams and weathermaps published.

- 1886, 1st January: Hourly observations commenced at *Tokio*.
 1887, 3rd August: Imperial Ordinance referring to the meteorological observatory and meteorological stations promulgated.
 1887, 10th August: Ministerial notification concerning the execution of the above decree.
 1887, 11th November: Fifty one provincial stations appointed.
 1888, 10th March: Weather indications first issued.
 1888, 31st March: I. Arai, the Director, placed on the Retired List and K. Kobayashi succeeded the post.
 1890, 2nd August: Administrative organization of the Observatory promulgated.
 1892, 5th May: Ministerial notification concerning the execution of the decree referring to the Observatory and stations revised.
 1892, 1st July: Rules for meteorological signals and local weather indications decided.

II. Diagram showing the increase of meteorological stations in Japan.

Although meteorological station was first erected in 1872 as mentioned in "*Organization of the meteorological system*", since the importance of the meteorological observations was not appreciated by the public, number of existing stations at the end of the year 1878, that is in the period of seven years, did hardly exceed four throughout the Empire. But in the course of five years since 1879, as the necessity of meteorological observations has been much recognized and on account of an execution of storm warnings had to be proposed, a rapid increase of stations has been a striking fact, the number reaching twenty three in all. Since then the regulation relating to the resources of meteorological services was sanctioned by *His Majesty* the Emperor and the positions of stations appointed by the Minister of Home Affairs. All these steps conjointly influenced a sudden rise in the number of stations, so that in 1889 six were added to the list, eight in 1890; thus we

had, in the close of the year 1891, forty six stations in the Empire including ten stations established during the years 1884-1888. Of course these are not sufficient for our purpose, yet we might dare to presume that, in spite of a newly introduced service, it will be a rare example not so often experienced in other countries to make any such striding progress in the course of only twenty years.

III. Chart of meteorological and signal stations and lighthouses of Japan.

Japan is situated between $24^{\circ} 5'$ and $50^{\circ} 56'$ of North Latitude, $122^{\circ} 45'$ and $156^{\circ} 32'$ of East Longitude. Her principal parts lie between 26° and 45° of Latitude, 146° and 128° in Longitude, amongst which the most important are *Honshu* (Nippon), *Kiushu* and *Shikoku*. The remotest stations are *Naha* (26° N.) in the south, *Soya* (46° N.) in the north, *Naha* (128° E.) in the west, and *Nemuro* (145° E.) in the east. When we compute the ratio of the number of existing meteorological stations to the area of our country, we will obtain in average one station in every 8,006 square kilometres.

In the number stated above, nine Stations are of the first order, that is, making hourly observations, and thirty seven of the second order which execute six daily observations at 2^h , 6^h , 10^h , am and pm. Besides, there are fifty lighthouses, lightships and lightstaffs making the same six daily observations as the stations of the second order ; but they are so many grouped in some coasts, whilst along the West and North coasts we find a great gap.

At present Temperature and Rainfall Stations are two hundred and two in number, Temperature Stations one hundred and forty four, Rainfall Stations fifty.

As we have already made full allusion to in "*Organization of the meteorological system*", the rules regarding storm signals was prescribed in 1883 ; thereafter at the end of the year 1891, the number of Signal Stations reached sixty three. If we calculate this number so as to be proportioned to the length of our coast, we will find a ratio approximately of one Signal Station in every 250 kilo-

metres. Hitherto signal stations have been erected mostly in ports frequented by steamers, so there is a further need to extend it also to fishing villages, the project of which would be achieved by and by with an elongation of telegraphic lines.

IV. Report of the meteorological observations at Tokio 1876-1890.

The Central Meteorological Observatory was established in 1875. At that time, observations were made only tri-daily, viz. at 9^h 30^m am, 3^h 30^m pm and 9^h 30^m pm; on January 1st 1878, they were increased to tri-hourly, that is, at 3^h am, 6^h am, 9^h am, noon, 3^h pm, 6^h pm, 9^h pm and midnight; on January 1st 1885, hourly observations were commenced in lieu of them, that system continuing yet now. This report contains the results of meteorological observations during the period of 15 years, from 1875 to 1890; its principal subjects being air pressure, air temperature, tension of vapour, relative humidity, wind direction, wind velocity, cloud amount, duration of sunshine, earth temperature, maximum solar radiation, minimum terrestrial radiation, precipitation, evaporation and ozone amount with all their changes, and miscellaneous remarks; also several reports such as on high level observations of Mount *Fuji*, *Gosaishodake* and *Ontake*, together with other special reports.

V. Report of the meteorological observations in Japan, 1886-1890.

All meteorological works of Provincial Stations are conducted in uniform system throughout the Empire; the kinds of instruments to be used and their arrangements, methods of observations and calculations, and forms of all reports are determined by the Director of the Central Observatory. This report contains the annual results of meteorological observations of all stations for the recent five years since 1886, in which no distinctions being made between the

first and second order, all observations have been taken at 2^h am, 6^h am, 10^h am, 2^h pm, 6^h pm and 10^h pm daily. The contents are air pressure, air temperature, tension of vapour, relative humidity, wind direction, wind velocity, precipitation, cloud direction, cloud speed, cloud amount, cloud forms, days of different kinds of weather and various miscellaneous notes.

VI. Report on earthquake observations in Japan, 1885-1890.

Seismometrical observations were for the first time made in 1875 in the Section of Land Survey of the Geographical Bureau at *Aiocho, Tokio*, where the *Palmieri's* Seismograph was employed. Since 1884, the *Milne-Gray's* Seismograph has been used; in the next year, the forms of earthquake record were distributed from the Observatory to each Station and Local Districts Office in which the methods of observations and means of distinguishing intensities have been explained, and in June 1891, all Provincial Stations were ordered to report by telegrams on every earthquake occurrence, its exact time and intensity. This report contains all observations made either by instruments or by feelings in about four hundred localities during the period of six years (1885-1890), and the results of seismometric observations at Tokio since its beginning, the headings treated being frequency of earthquakes, areas, time, intensity and its distribution over the Empire.

Number of earthquakes experienced on the whole country during these six years are 3,842, annual mean 640 and daily mean 1.7; the maximum frequency falling in August. However on July 28th 1889, *Kumamoto* was visited by a great earthquake which has been followed by incessant shocks over a considerable length of days, so that the mean of six years has been affected very much. Rejecting this we have obtained a monthly mean 49, the maximum being in May (65), the minimum in August (42); in intensities we have 55 % of slight, 38 % of feeble and 7 % of heavy shocks (falling down of lightly placed bodies or producing cracks in walls), the maximum heavy shocks occurring in February and April, the minimum in June.

VII. Specimen of Tri-daily Weathermaps.

On February 16th in 1883, a system of regular meteorological telegrams, once a day, was organized, thereby daily weathermaps published at the Central Observatory. From July 1st in 1884, tri-daily regular telegrams, viz, 6^h am, 2^h pm and 9^h pm (that was changed to 10^h pm on January 1st 1892), have been received at the Observatory from the Provincial Stations and tri-daily weathermaps (4 pages) published; storm warnings and weather predictions are all based on these data. On three pages out of four, isobars, isotherms, direction and force of wind, state of weather and warned districts are drawn, and readings of barometer, thermometer, wind direction, wind force, amount of precipitation, maximum and minimum temperature with changes for 24 hours and also foreign telegrams are tabulated in one page; in its bottom weather forecast for each meteorological district and storm warnings, if necessary, are inserted in abbreviated and legible form of language. These are the specimen of weathermaps and they explain the cyclonic storms visited our country in autumn and winter seasons. We intentionally selected them on September 14th and December 5th 1891, as they furnish themselves the most favourable examples.

VIII. Report on the areas of low and high pressure in Japan, 1883-1890.

Commencement of simultaneous meteorological observations and publications of daily weathermaps in Japan were alike in 1883, accordingly the business relating to the investigation of our storms was inaugurated in that year. This report contains solely the results relating to the movements of low and high areas of pressure, experienced during eight years since 1883. It is classified to areas of low and high pressure, days of gales, days of heavy rains, verifications of indications and storm warnings, together with isobaric, isothermal and precipitation charts for monthly and annual means during that period. The following are the percentage of

mean verifications of indications and warnings experienced during eight years :—

Month	Indications of		Storm warnings
	Weather	Wind direction	
January	84	77	71
February	81	84	67
March	80	79	77
April	78	75	65
May	75	80	67
June	79	80	66
July	85	85	54
August	86	85	69
September	82	79	65
October	80	82	65
November	83	69	76
December	84	83	74
Mean	82	81	76

IX. Charts showing seasonal distributions of air pressure and wind over Japan.

Although an earliest establishment of stations refers to the year 1872, the observations of a majority of stations now existing in Japan do not extend over ten years, therefore the corrections have been applied to them, by an interpolation comparing with adjacent stations experienced over ten years. The Charts are prepared by all these documents and adopting foreign observations such as at *Fusan*, *Jenchuan*, *Yuensan* in Corea, and at *Vladivostok* and *St. Olga* in Siberia. Other charts are also treated in the same manner. The Charts show seasonal distribution of air pressure and wind direction, the necessary corrections of pressure relating to altitude and gravity having been applied; wind directions given by percentage in eight points of compass, their mean directions being represented by arrows, number of calms by the size of a circle in the centre. Now we proceed to give some description of the Charts.

In winter, the high pressure area covers over the Asiatic Continent, north of Corea, and the low area lies over the Northern

Pacific Ocean. The isobaric lines run almost north and south, the barometrical range reaching as much as eight millimetres, thereby we experience in winter strong north to westerly winds frequently. But in summer, on the contrary the low area lies over the Continent and the high displays over the Pacific, the isobaric lines slightly inclining towards the northeast, the range being only two millimetres. Accordingly light south to easterly winds generally prevail in this season. In other two seasons—spring and autumn, it may be safely said that the distributions of pressure and direction of wind are as it were in midway between the changes in winter and summer.

The extreme readings of barometer and wind velocity noted since the beginning of this service are the following:—

Maximum air pressure 779.8 mm on February 2nd 1883, at *Nemuro* in Eastern *Hokkaido*.

Minimum air pressure 713.1 mm on September 14th, 1891, at *Nagasaki* in *Kiushu*.

Maximum wind velocity 43.2 m. p. s. October 10th, 1891, at *Settsu* in Western *Hokkaido*.

X. Charts showing seasonal distributions of air temperature and weather over Japan.

The Charts are intended to show seasonal distributions of air temperature and weather. Temperature in centigrade degrees is represented by means of isothermal lines, and number of days of different kinds of weather by area of a circle drawn just on the position of a station; an area of outer circle proposed to denote whole number of days of weather in one season and divided into three sectors that are designed to illustrate respectively proportional number of clear, fair and cloudy days, and inner circle to point out proportional number of rainy days. A general meteorological feature to be learned from these Charts is epitomized at some length. In winter, the mean temperature ranges from 18° in *Bonin Island* to -7° in Central *Hokkaido*, its difference 25° , and the isothermal lines run northerly almost along the coast, so that the

inland is colder in this season than the coast. In summer, the mean temperature is highest also in *Bonin* Island (27°), lowest at *Nemuro* (15°), the range being only 12° , and the isothermal lines flow in southerly direction along the coast that brings out the fact just opposite to winter, the inland warmer than the coast. The thermal condition of spring and autumn is to be considered as the intermediate status coming between winter and summer.

The extreme temperatures noted since the beginning of meteorological works in Japan are

Maximum temperature 37.5°C on August 19th, 1886, at *Hiroshima*, in the Inland Sea.

Minimum temperature -36.7° on January 29th, 1891, at *Kamikawa* in Central *Hokkaido*.

As regards to the weather, in winter, we experience much rain or snow and least clear or fair days along the sea of Japan, while the occasion is reversed along the Pacific Coast; but, in summer, rainy days are most and fair least in Southern Japan; mostly fair weather enjoyed in Northern District.

XI. Charts showing seasonal distributions of amount of precipitation.

The Charts show seasonal distributions of amount of precipitation. It has been prepared by comparing observations of each provincial station, with no less than one hundred and fifty lighthouses and rainfall stations. We will now give the gist of its distribution. We have abundant rain as compared with neighboring countries, the average fall at places of the Extreme South reaching 3 metres in the year. In winter there measured 400-800 mm along the Sea of Japan, only 100-300 mm on the south coast, but in summer we had 800-1,000 mm on the south coast while in the Inland Sea and Northern Japan the amount did not exceed over 200-400 mm.

The extreme amount of precipitation noted since the opening of meteorological services in Japan are:

Maximum amount for 24 hours, 900 mm on August 20th, 1889 at *Tanabe* in *Kii* peninsula.

Maximum amount for 4 hours, 177 mm on April 2nd 1891 at *Naha*, in *Liukiu*.

Maximum amount for 1 hour, 54 mm on December 28th, 1890 at *Kumamoto* in *Kiushu*.

XII. Charts showing frequency of Earthquakes in Japan, the great earthquakes of Kumamoto and Mino-Owari.

The Chart shows annual frequency of earthquakes in Japan, prepared from the means of 6 years since 1885, the region covered by closed lines interpreting the most frequented places. This gives a general idea that the frequency of earthquakes is greater along the Pacific Coast, that is, from Southern *Kiushu* up to the east extremity of *Hokkaido*, than along the Sea of Japan, most conspicuous near *Tokio*, and the least frequency in *Tsushima*.

The violent shocks since the great earthquake of *Yedo* (November 11th 1855), have been as follows:—

On March 5th 1864, in the provinces of *Tamba* and *Harima*;

On March 14th 1872, in the province of *Iwami* and *Izumo*;

On July 28th, 1889 at *Kumamoto*;

On October 28th, 1891 in the province of *Mino* and *Owari*.

As the former two refer to the dates before the establishment of regular services, we are unable at present to trace any of their particulars, but with regard to the *Kumamoto* and *Mino-Owari* earthquakes, as we had an ample opportunity to investigate their occurrences, much time has been devoted to its researches, consequently many important data are now all at hand. Thereupon the separate charts have been prepared to show their intensities. The *Kumamoto* earthquake occurred at 11.^h40^m pm on July 28th 1891, and extended to the western extremity of *Honshu* (Nippon) in east, the area calculated approximately 10,000 square kilometres, wherein 1,500 square kilometres have been the parts violently shaken, destroying 400 dwellings, killing 20 persons, injuring 74. Near the epicentric region the earth crust produced many cracks, from which sand and mud have been emitted; the largest splits reaching the length of 1,300 metres, the breadth 6 metres. After this great earthquake,

the people have experienced many successive shocks, amongst which on July 29th and 30th, numbers noted were 62.

The occurrence of the *Mino-Owari* earthquake was at 6^h 38^m am on October 28th 1891. Its area was nearly 240,000 square kilometres, comprising *Gifu* in the epicentre; the region extended from *Owari* Bay in the Pacific Ocean to *Tsuruga* Bay in the Sea of Japan has been the most seriously damaged which are assuredly told to have been the greatest distress during past 40 years. The most violent shocks covers the area of about 1,000 square kilometres; indeed within this space grounds sunk in, mountains destroyed, dwellings upset, rails damaged, bridges fell down, were innumerable. Their important figures are summed up thus :

Death 7,273; Injured 17,175; Houses destroyed 142,177; Houses partially destroyed 80,324; Bridges fell down 10,392.

During several months, this great earthquake has been followed by incessant shocks in the district severely shaken, a certain occasion bringing several hundreds in a day. Even now after 15 months elapsed from the occurrence, we are experiencing 2 or 3 times every day.

XIII. The Climate of Japan.

This volume embodies the results of all kinds of observations taken at each station since the inauguration of our official meteorological services and discusses fully about our climate and the changes of meteorological elements. The different headings of this volume are as follows:—

INTRODUCTION.—General geographical description of Japan.

CHAPTER I.—Air Temperature :

Diurnal and annual variations and its distribution over Japan, extremes, ranges and miscellaneous.

CHAPTER II.—Atmospheric pressure :

Diurnal and annual variations, extremes and its distribution over Japan.

CHAPTER III.—Wind :

Diurnal and annual variations, maximum velocity and frequency.

CHAPTER IV.—Humidity:

Diurnal and annual variations and extremes.

CHAPTER V.—Cloud amount:

Diurnal and annual variations, number of clear and cloudy days and sunshine.

CHAPTER VI.—Precipitation:

Diurnal and annual variations, heavy rain, frequency and its distribution over Japan.

CHAPTER VII.—Conclusion:

Mutual relations of meteorological elements and their nature of changes.

All the essays in each chapter are illustrated by exquisite and perfect diagrams or charts annexed.

XIV. Report on high level meteorological observations in Japan, 1880-1891.

Since the year 1880, the high level meteorological observations have been made during the periods of some days or over several months, by the officials of our Observatory or by our other meteorologists, was just 6 times. This report contains all the results of observations made on high mountains compared with those of lower stations, and some differences of the meteorological elements between the upper and lower air strata.

The selected high level stations during expeditions are

High Station:	Altitude:	Period of Observations.	
Fuji	3,718 m.	{ August,	1883
		{ September,	1887
		{ August,	1889
Ontake	3,062 m.	August,	1891
Gozaishodake	1,200 m.	September,	1888
Yamanaka	990 m.	August,	1889
Kurosawa	832 m.	August,	1891
Higashi Hoben	736 m.	August-October	1889

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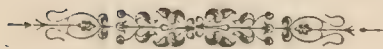
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DETAILS
OF THE
INDUSTRIAL SPECIMENS
EXPOSED AT
THE WORLD'S COLUMBIAN EXPOSITION

BY

The Bureau of Commerce and Industry,
Department of Agriculture and
Commerce, Japan.



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—
1893.

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DETAILS

OF THE

INDUSTRIAL SPECIMENS.

SPECIMENS OF ENVELOPES, NOTE-PAPER AND FORDED PAPER.

(H. Department, Group 89, Class 560.)

The envelopes and note-papers should be of strong nature, the papers manufactured at the Imperial Printing Bureau are strong and best suited for export purposes. The drawings and figures impressed upon them are in the newest style, much appreciated by the customers. The following arrangement will show that they are done by the noted painters.

Folded-papers are used in ceremonies and in sending presents from time immemorial. The different varieties are much more than shown here. In the present days, they are used in wrapping small articles and the way in which they are used in wrapping small articles and the way in which they are used is quite many.

TABLE OF ENVELOPES AND NOTE-PAPERS.

SYMBOL.	NUMBER.	VALUE OF ONE THOUSAND LEAVES.	SYMBOL.	NUMBER.	VALUE OF ONE THOUSAND LEAVES.
A	From No. 1 to No. 6	Yen. 8.25	M	From No. 1 to No. 6	4.400
B	„ No. 1 „ No. 7	9.35	N	„ No. 1 „ No. 6	5.500
C	„ No. 1 „ No. 7	8.25	O	„ No. 1 „ No. 6	7.700
D	„ No. 1 „ No. 6	9.35	P	„ No. 1 „ No. 7	8.250
E	„ No. 1 „ No. 8	8.80	Q	„ No. 1 „ No. 5	6.600
F	„ No. 1 „ No. 6	8.25	R	„ No. 1 „ No. 5	7.150
G	„ No. 1 „ No. 6	5.15	S	„ No. 1 „ No. 5	6.050
H	„ No. 1 „ No. 4	6.05	T	„ No. 1 „ No. 5	6.600
I	„ No. 1 „ No. 6	6.05	U	„ No. 1 „ No. 5	4.950
J	„ No. 1 „ No. 5	12.50	V	„ No. 1 „ No. 5	5.500
K	„ No. 1 „ No. 6	5.50	W	„ No. 1 „ No. 5	10.450
L	„ No. 1 „ No. 6	6.60	X	„ No. 1 „ No. 5	11.000

TABLE OF THE FOLDINGS.

NUMBER.	NAMES.	VALUE ON EACH 100 LEAVES.
1	Genjō Mochi Fold.. .. .	Yen. 4.000
2	Hōzuki Fold	4.000
3	Genjō Mochi Fold.. .. .	4.000
4	Heishi Mechō	4.000
5	Incense Spoon, and Tong Fold	4.000
6	Salt Fold	4.000
7	Fan Fold	4.000
8	Semmai Fold	3.000
9	Incense fold	3.000
10	Kaorimono Fold	3.000
11	Incense Label Fold	4.000
12	Hawk Bill Fold	4.000
13	Incense Fold	4.000
14	Heishi Ochō	4.000
15	Incense Fold	4.000
16	Incense Spoon, and Tong Fold	4.000
17	Floval Fold.. .. .	4.000
18	Gold Fold	3.000
19	Coloured Papar Fold	4.000
20	Genjō Mochi Fold.. .. .	4.000
21	Hōzuki Fold	4.000
22	Incense Fold	3.000

COLLECTION OF NASHIJI.

(H. Department, Group 90, Class 567.)

Nashiji is the name given to one kind of gold lacquerings, principally applied to the inner side of boxes and under side of tables. There are many varieties and the difference in price is also great. At one sight the appearance being almost alike, and in transaction it is sometimes indiscriminately dealt with, causing disadvantages to both sides. Here the class and price are minutely shown.

TABLE OF THE VALUE AND VARIETIES OF NASHIJI.

[From No. 1 to 29 is gold, from 20 to 42 is silver, and from 43 to Upward is tin.]

No.	NAMES.	VALUE (each 1 Sun sq)	
		Yen.	
1	Yakikin Gyōbu Nashiji	0.4600	
2	Yakikin Daiichi Nashiji	0.1287	
3	Yakikin Daini Nashiji	0.1287	
4	Yakikin Daisan Nashiji	0.1178	
5	Yakikin Kanoko Nashiji	0.1560	
6	Yakikin Tamamura Nashiji	0.0850	
7	Yakikin Kumo Nashiji	0.0850	
8	Yakikin Kasumi Nashiji	0.0850	
9	Yakikin Kirihaku Moyōri Nashiji	0.3705	
10	Yakikin Tsune no san Nashiji	0.2106	
11	Yakikin Daisan no chū Nashiji	0.0632	
12	Yakikin Shōsan no chū Nashiji	0.0577	
13	Yakikin Daini Hirame Nashiji	0.2680	
14	Yakikin Daidai ichi Okihirame Nashiji	0.7528	
15	Yakikin Tsunenosan Makihirame Nashiji	0.6276	
16	Yakikin Daisan Okihirame Nashiji	0.7631	
17	Yakikin Shōsan Makihirame Nashiji	0.5174	
18	Kobankin Tsune no san Nashiji	0.5460	
19	Kobankin Shōsan Nashiji	0.4420	
20	Kobankin Gyōbu Nashiji	0.3900	
21	Kobankin Daiichi Nashiji	0.1025	
22	Kobankin Daini Nashiji	0.1027	
23	Kobankin Daisan Dzume Nashiji	0.0975	
24	Kobankin Kumo Nashiji	0.0715	
25	Kobankin Tamamura Nashiji	0.0715	
26	Kobankin Kasumi Nashiji	0.0715	
27	Kobankin Daisan no chū Nashiji	0.0559	
28	Kobankin Shōsan no chū Nashiji	0.0507	
29	Gin Gyōbu Nashiji	0.1105	
30	Gin Daiichi Okihirame Nashiji	0.1430	
31	Gin Daisan Okihirame Nashiji	0.2015	
32	Gin Daini Okihirame Nashiji	0.0877	
33	Gin Daisan Makihirame Nashiji	0.0585	
34	Gin Tsune no san Makihirame Nashiji	0.0585	
35	Gin Shōsan Makihirame Nashiji	0.0520	
36	Gin Kanoko Nashiji	0.0936	
37	Gin Daisan Dzume Nashiji	0.0260	
38	Gin Kumo Nashiji	0.0240	
39	Gin Tamamura Nashiji	0.0240	
40	Gin Kasumi Nashiji	0.0240	
41	Gin Daisan no chū Nashiji	0.0221	
42	Gin Shōsan no chū Nashiji	0.0214	
43	Suzu Tsune Nashiji	0.0071	
44	Suzu Momiji Moyōri Nashiji	0.0137	
45	Suzu Kumo Nashiji	0.0134	
46	Suzu Kasumi Nashiji	0.0134	
47	Suzu Tamamura Nashiji	0.0134	
48	Suzu Chū Nashiji	0.0068	

COLLECTION OF METAL WORKS.

(H. Department, Group 93, Class 585.)

The art of alloying is very skilful in Japan from ancient times. There are many rare mixtures such as Shakudō (Nos. 21, 22, 23 and others) and Shibuichi (Nos. 24, 25, 26 and others), which are never known in Europe. Coloring has also a special nature, which shows and imparts beautiful appearance to the single or alloyed metals, as shown in No. 21 and upwards. With chisel and file in numerable figures are produced on it, as shown from No. 1.—No. 20.

No.	NAMES.	VALUE (1 sun sq.)
		Yen.
1	Yakikin No. 1 Nanako	7.425
2	Shakudō No. 1 Nanako	1.700
3	Silver and Shakudō Scale-figured No. 3 Nanako..	2.625
4	Gold-gilded on Silver No. 4 Nanako	3.845
5	Shakudō and Shibuichi Ishidatami No. 5 Nanako	2.500
6	Scarlet Copper No. 6 Nanako	1.000
7	Shibuichi Nijiu Nanako	1.275
8	Yakikin Botan Yujō	6.575
9	Shakudō Tate Yujō	1.250
10	Gindama Tsuki Yujō	1.660
11	Shakudō Shibagaki Yujō	1.300
12	Gold-gilded on silver stripe inlaid Yujō	1.980
13	Gold-gilded on silver Nami Yujō.. .. .	1.930
14	Silver Nata Ishime.. .. .	1.730
15	Shakudō Crape Ishime	1.200
16	Gold-gilded on Silver Chidori Ishime	1.930
17	Shakudō Oresaki Ishime	1.150
18	Shibuichi Chidori Ishime	0.725
19	Gold-gilded on Silver Nata Ishime	1.930
20	Brass Chidori Ishime	0.350
21	No. 1 Shakudō	1.550
22	No. 2 Shakudō	0.990
23	No. 3 Shakudō	0.710
24	No. 1 Shibuichi	1.128
25	No. 2 Shibuichi	0.926
26	No. 3 Shibuichi	0.522
27	Scarlet Copper	0.150
28	Brass	0.160
29	Kurumi Copper	0.150
30	Su Copper	0.140
31	Nashiji Copper	0.350
32	Brass	0.160
33	Kurumi Copper and Su Copper Mokume ..	0.750
34	Silver and Shakudō Mokume	1.150
35	Shakudō Scarlet-coloured Mokume	0.350
36	No. 1 Kawari Copper	0.160
37	No. 2 Kawari Copper	0.160
38	No. 3 Kawari Copper	0.160
39	No. 4 Kawari Copper	0.160
40	Wrought-iron Rust Colouring	0.180

VARIOUS STAGES IN THE MANUFACTURE OF CLOISONNÉ.

(H. Department, Group 93, Class 586.)

In the manufacture of cloisonnés sixteen stages are to be passed. No. 1 shows the pattern, No. 2 cells laid on groundwork, No. 3 solders pasted over, No. 4 solders heated, No. 5 enamel laid for the first time, No. 6 burnt for the first time, No. 7 enamel laid for the second time, No. 8 burnt for the second time, No. 9 enamel laid for the third time, No. 10 burnt for the third time, No. 11 enamel for the fourth time, No. 12 burnt for the fourth time, No. 13 roughly polished, No. 14 last touch, No. 15 last burning, No. 16 complete finish.

THE DIFFERENT COLORING OF CLOISONNE.

(H. Department, Group 93, Class 586.)

According to the nature of paints, the tinges of colors, of course, differ. In order to represent figures in enamel, all sorts of colors are to be used. This is the main differently with the manufacture of cloisonné. The colors here shown are 360 kinds, all of which are used in the manufacture. As to the price it all depends upon the execution of design and amount of labour, so it could not be shown here.

SPECIMENS OF GOLD AND SILVER THREAD.

(H. Department, Group 100, Class 625.)

Gold and silver thread is one of the handiworks, which is never produced in Europe. Even in this country, the place of manufacture is limited to Kyoto. Accordingly the amount of produce is very small, yet to show the real golden

or silver colour in the fabrics, it is necessarily resorted to. In late years it found the way to foreign market, and begins to be exported. Some threads are very fine while others are large; the way they are used is quite many.

CATALOGUE OF THE GOLD AND SILVER THREAD.

No.	NAME.	SORT.	No. Two hundred times round a plank of 1 shaku 1 sun of kane measure make a Bundle	VALUE. Yen.
1	Gold-Thread.	(Yakihiro fun Gold Thread (with core of cotton thread).	8 Bu gake. One Bundle.	0.048
2	"	"	1 gake.	0.053
3	"	"	1½ "	0.058
4	"	"	2 "	0.064
5	"	"	2½ "	0.075
6	"	"	3 "	0.085
7	"	"	4 "	0.095
8	"	"	5 "	0.105
9	"	"	6 "	0.115
10	"	"	7 "	0.125
11	"	"	8 "	0.135
12	"	"	9 "	0.145
13	"	"	10 "	0.155
14	"	"	12 "	0.180
15	"	"	Muzu.	0.210
16	"	"	Omuzu.	0.240
17	"	"	(Daidai muzu.	0.270
18	"	"	(Betsu muzu.	0.300
19	"	"	(Betsu omuzu.	0.340
20	"	"	(Mare muzu.	0.380
21	"	(Yaki hon Gold Thread (with core of cotton thread).	8 Bu gake.)	0.165
22	"	"	1 gake.	0.180
23	"	"	1½ "	0.200
24	"	"	2 "	0.240
25	"	"	2½ "	0.290
26	"	"	3 "	0.330
27	"	"	4 "	0.410
28	"	"	5 "	0.460
29	"	"	6 "	0.500
30	"	"	7 "	0.550
31	"	"	8 "	0.600
32	"	"	9 "	0.640
33	"	"	10 "	0.700
34	"	"	12 "	0.820
35	"	"	Muzu.	0.950

No.	NAME.	SORT.	No. Two hundred times round a plank of 1 shaku 1 sun of kane measure make a Bundle.	VALUE. Yen.
36	Gold-Thread.	{ Mekomi hon Gold Thread (with core of silk thread).	8 Bu gake. } One Bundle.	0.210
37	"	"	1 gake.	0.280
38	"	"	1½ "	0.320
39	"	"	2 "	0.390
40	"	"	2½ "	0.400
41	"	"	3 "	0.460
42	"	"	4 "	0.580
43	"	"	5 "	0.670
44	"	"	6 "	0.790
45	"	"	7 "	0.870
46	"	"	8 "	0.980
47	"	"	9 "	1.080
48	"	"	10 "	1.180
49	"	"	12 "	1.400
50	"	"	Muzu.	1.800
51	"	"	Omuzu.	2.100
52	"	{ Ōaka hon Gold Thread (with core of silk thread).	8 Bu gake. }	0.190
53	"	"	1 gake	0.250
54	"	"	1½ "	0.280
55	"	"	2 "	0.320
56	"	"	2½ "	0.360
57	"	"	3 "	0.400
58	"	"	4 "	0.500
59	"	"	5 "	0.570
60	"	"	6 "	0.680
61	"	"	7 "	0.780
62	"	"	8 "	0.860
63	"	"	9 "	0.970
64	"	"	10 "	1.070
65	"	"	12 "	1.230
66	"	"	{ Shin muzu. }	1.400
67	"	"	{ Shin ōmuzu. }	1.520
68	"	"	Omuzu.	1.730
69	"	{ Tsune hon Gold Thread (with core of cotton thread).	8 Bu gake. }	0.145
70	"	"	1 gake.	0.165
71	"	"	1½ "	0.185
72	"	"	2 "	0.210
73	"	"	2½ "	0.240
74	"	"	3 "	0.300
75	"	"	4 "	0.380
76	"	"	5 "	0.415
77	"	"	6 "	0.450
78	"	"	7 "	0.500

No.	NAME.	SORT.	No. Two hundred times round a plank of 1 shaku 1 sun of kane measure make a Bundle.	VALUE. Yen.
79	Gold-Thread.	{ Tsune hon Gold Thread (with core of silk thread). }	8 gake. } One Bundle.	0.540
80	"	" 9 "	" "	0.570
81	"	" 10 "	" "	0.620
82	"	" 12 "	" "	0.710
83	"	" Muzu.	" "	0.850
84	"	" Ōmuzu.	" "	0.950
85	"	{ Fun Gold Thread (with core of cotton thread). }	8 Bu } gake. }	0.045
86	"	" 1 gake.	" "	0.050
87	"	" 1½ "	" "	0.055
88	"	" 2 "	" "	0.060
89	"	" 2½ "	" "	0.070
90	"	" 3 "	" "	0.080
91	"	" 4 "	" "	0.090
92	"	" 5 "	" "	0.100
93	"	" 6 "	" "	0.110
94	"	" 7 "	" "	0.120
95	"	" 8 "	" "	0.130
96	"	" 9 "	" "	0.140
97	"	" 10 "	" "	0.150
98	"	" 12 "	" "	0.175
99	"	" Muzu.	" "	0.205
100	"	" Ōmuzu.	" "	0.230
101	"	" { Daidai muzu. }	" "	0.260
102	"	" { Betsu muzu. }	" "	0.290
103	"	" { Betsu ōmuzu }	" "	0.330
104	"	" { Mare muzu. }	" "	0.370
105	Hira Gold Thread.	{ Yaki hon Kin Ryōmen hira. }	{ Length, 1 shaku 5 sun 5 bu. Breadth, 2 shaku 7 sun. }	" 1.780
106	"	{ Tsuneiro hon Kin Ryōmen hira. }	" "	1.520
107	"	{ Yaki hon Kin hon Gin (Ryōmen hira.) }	" "	1.050
108	"	{ Fun Kin Ryō- men hira. }	" "	0.310
109	"	{ Fun Kin hon Gin Ryōmen hira. }	" "	0.300

No.	NAME.	Sort.	No. Two hundred times round a plank of 1 shaku 1 sun of kane measure make a Bundle.	VALUE. Yen.
110	Hira Gold Thread.	{ Hon Gin Ryō- men hira. }	{ Length, 1 shaku 5 sun 5 bu. Breadth, 2 shaku 7 sun. }	One Bundle. 0.290
111	"	{ Yaki hon Kin hira. }	"	" 0.670
112	"	{ Tsuneiro hon Kin hira. }	"	" 0.590
113	Silver Thread.	{ Hon Silver Thread (with core of cotton thread). }	{ 8 Bu gake. }	" 0.045
114	"	"	1 gake.	" 0.050
115	"	"	1½ "	" 0.055
116	"	"	2 "	" 0.060
117	"	"	2½ "	" 0.070
118	"	"	3 "	" 0.080
119	"	"	4 "	" 0.090
120	"	"	5 "	" 0.100
121	"	"	6 "	" 0.110
122	"	"	7 "	" 0.120
123	"	"	8 "	" 0.130
124	"	"	9 "	" 0.140
125	"	"	10 "	" 0.150
126	"	"	12 "	" 0.175
127	"	"	Muzu.	" 0.205
128	"	"	Ōmuzu.	" 0.230
129	"	"	{ Daidai muzu. }	" 0.260
130	"	"	{ Betsu muzu. }	" 0.290
131	"	"	{ Betsu ōmuzu. }	" 0.330
132	"	"	{ Mare muzu. }	" 0.370
133	{ Coloured Metal Thread. }	Bronze Coloured.	8 Bu gake.	" 0.045
134	"	"	1 gake.	" 0.050
135	"	"	1½ "	" 0.055
136	"	"	2 "	" 0.060
137	"	"	2½ "	" 0.070
138	"	"	3 "	" 0.080
139	"	"	4 "	" 0.090
140	"	"	5 "	" 0.100
141	"	"	6 "	" 0.110
142	"	"	7 "	" 0.120
143	"	"	8 "	" 0.130
144	"	"	9 "	" 0.140
145	"	"	10 "	" 0.150
146	"	"	12 "	" 0.175

No.	NAME.	Sort.	No. Two hundred times round a plank of 1 shaku 1 sun of kane measure make a Bundle.	VALUE. Yen.
147	{ Coloured Metal Thread. }	Bronze Coloured .. Muzu.	One Bundle.	0.205
148		.. Ōmuzu.	..	0.230
149		{ Daidai Muzu.	{ ..	0.260
150		{ Betsu muzu.	{ ..	0.290
151		{ Betsu ōmuzu.	{ ..	0.330
152		{ Mare muzu.	{ ..	0.370
153		Red Coloured .. 8 Bu gake.	..	0.045
154		.. 1 gake.	..	0.050
155		.. 1½ ..	..	0.055
156		.. 2 ..	..	0.060
157		.. 2½ ..	..	0.070
158		.. 3 ..	..	0.080
159		.. 4 ..	..	0.090
160		.. 5 ..	..	0.100
161		.. 6 ..	..	0.110
162		.. 7 ..	..	0.120
163		.. 8 ..	..	0.130
164		.. 9 ..	..	0.140
165		.. 10 ..	..	0.150
166		.. 12 ..	..	0.175
167		.. Muzu.	..	0.205
168		.. Ōmuzu.	..	0.230
169		{ Daidai muzu.	{ ..	0.260
170		{ Betsu muzu.	{ ..	0.290
171		{ Betsu ōmuzu.	{ ..	0.330
172		{ Mare muzu.	{ ..	0.370
173		Uguisu Iro 8 Bu gake.	..	0.045
174		.. 1 gake.	..	0.050
175		.. 1½ ..	..	0.055
176		.. 2 ..	..	0.060
177		.. 2½ ..	..	0.070
187		.. 3 ..	..	0.080
179		.. 4 ..	..	0.090
180		.. 5 ..	..	0.100
181		.. 6 ..	..	0.110
182		.. 7 ..	..	0.120
183		.. 8 ..	..	0.130
184		.. 9 ..	..	0.140
185		.. 10 ..	..	0.150
186		.. 12 ..	..	0.175
187		.. Muzu.	..	0.205
188		.. Ōmuzu.	..	0.230

No.	NAME.	Sort.	No. Two hundred times round a plank of 1 shaku 1 sun of kane measure make a Bundle.	VALUE. Yen.
189	{ Coloured Metal Thread. }	Uguisu Iro.....	{ Daidai muzu. }	One Bundle. 0.260
190		"	{ Betsu muzu. }	" 0.290
191		"	{ Betsu ōmuzu. }	" 0.330
192		"	{ Mare muzu. }	" 0.370
193	"	Purple Coloured. 8 Bu gake.	"	" 0.045
194	"	" 1 gake.	"	" 0.050
195	"	" 1½ "	"	" 0.055
196	"	" 2 "	"	" 0.060
197	"	" 2½ "	"	" 0.070
198	"	" 3 "	"	" 0.080
199	"	" 4 "	"	" 0.090
200	"	" 5 "	"	" 0.100
201	"	" 6 "	"	" 0.110
202	"	" 7 "	"	" 0.120
203	"	" 8 "	"	" 0.130
204	"	" 9 "	"	" 0.140
205	"	" 10 "	"	" 0.150
206	"	" 12 "	"	" 0.175
207	"	" Muzu.	"	" 0.205
208	"	" Ōmuzu.	"	" 0.230
209	"	" { Daidai muzu. }	{ }	" 0.260
210	"	" { Betsu muzu. }		" 0.290
211	"	" { Betsu ōmuzu. }		" 0.330
212	"	" { Mare muzu. }		" 0.370
213	"	Blue Coloured . . 8 Bu gake.	"	" 0.045
214	"	" 1 gake.	"	" 0.050
215	"	" 1½ "	"	" 0.055
216	"	" 2 "	"	" 0.060
217	"	" 2½ "	"	" 0.070
218	"	" 3 "	"	" 0.080
219	"	" 4 "	"	" 0.090
220	"	" 5 "	"	" 0.100
221	"	" 6 "	"	" 0.110
222	"	" 7 "	"	" 0.120
223	"	" 8 "	"	" 0.130
224	"	" 9 "	"	" 0.140
225	"	" 10 "	"	" 0.150
226	"	" 12 "	"	" 0.175
227	"	" Muzu.	"	" 0.205
228	"	" Ōmuzu.	"	" 0.230
229	"	" { Daidai Muzu. }	{ }	" 0.260

No.	NAME.	SORT.	No. Two hundred times round a plank of 1 shaku 1 sun of kane measure make a Bundle	VALUE.	
230	{ Coloured Metal Thread. }	Blue Coloured..	{ Betsu muzu. }	One Bundle.	Yen. 0.290
231		"	{ Betsu ōmuzu. }	"	0.330
232		"	{ Mare muzu. }	"	0.370
233		{ Yellow-green } { Coloured. }	..8 Bu gake.	"	0.045
234		"	1 gake.	"	0.050
235		"	1½ "	"	0.055
236		"	2 "	"	0.060
237		"	2½ "	"	0.070
238		"	3 "	"	0.080
239		"	4 "	"	0.090
240		"	5 "	"	0.100
241		"	6 "	"	0.110
242		"	7 "	"	0.120
243		"	8 "	"	0.130
244		"	9 "	"	0.140
245		"	10 "	"	0.150
246		"	12 "	"	0.175
247		"	Muzu.	"	0.205
248		"	Ōmuzu.	"	0.230
249		"	{ Daidai. muzu. }	"	0.260
250		"	{ Betsu muzu. }	"	0.290
251		"	{ Betsu ōmuzu. }	"	0.330
252		"	{ Mare muzu. }	"	0.370

SPECIMENS OF ORNAMENTAL CORD-KNOTS.

(H. Department, Group 100, Class 632.)

The Cord-Knots were used from ancient time on literary as well as military articles, used in ornaments. Adding the beautiful appearance to the things to look upon, it would be suitable to be used on chairs, curtains and other things of furniture it will be quite an improvement. The specimens are open to the reference of visitors.

No.	NAME.	VALUE OF ONE.
		Yen.
55	Bird Knots	0.180
56	Sazanka Knots	0.150
57	Tobutsu Takara Knots	0.225
58	Kuyō Knots	0.525
59	Shirikai Knots	0.150
60	Arai Kutsuwa Hanakawa Knots	0.180
61	Muchi-no-o Knots	0.120
62	Kusafuji Knots	0.330
63	Chatsubo Chichi-o Knots	0.150
64	Chatsubo Chichi-o Knots	0.270
65	Suwo Munehimo Knots	0.150
66	Sasa-no-ia Knots	0.150
67	Tobutsu-Kiku Knots	0.375
68	Matsu Knots	0.150
69	Fuji Flower Knots	0.420
70	Yaye Chrysanthemum Knots	0.300
71	Plum-tree Flower Knots	0.225
72	Fuji Knots	0.180
73	Hokkeshiū Kesa Knots	0.600
74	Doshiu Knots	0.090
75	Nagao Knots	0.150
76	Futatsuba Knots	0.225
77	Azuma Knots	0.150
78	Chatsubo Chichi-o Knots	0.300
79	Fuji Knots	0.300
80	Tsubaki Flower Knots	0.300
81	Usagi Kashira Knots	0.120
82	Tobutsu Chrysanthemum Flower Knots	0.330
83	Hojiū Knots	0.150
84	Agemaki Knots	0.150
85	Kusafuji Knots	0.225
86	Muchi Knots	0.120
87	Chatsubo Chichi-o Knots	0.225
88	Chatsubo Chichi-o Knots	0.225
89	Two-fold Kukurikiri Fringe	0.225
90	One-fold Kukurikiri Fringe	0.450
91	Hitoe Kukurikiri Fringe	0.225
92	Atamagakari Yorikaeshi Fringe	0.450
93	Kanamonotsuki Yorikaeshi Fringe	0.520
94	Atama Amiage Yorikaeshi Fringe	0.225
95	Natsumegata Atamakagari Yorikaeshi, Fringe	0.450
96	Metal Ornaments Attached Yorikaeshi Fringe	0.525

SPECIMENS OF FANS TO BE USED IN CEREMONIES.

(H. Department, Group 106, Class 667.)

No. 1 is the imitation of Akome fan, which is said to be made by the wife of Taira no Atsumori, to present it to Buddha, to pray for the happiness of her husband. The

original is treasured in the Mikagedo of Kyoto. No. 2 is the treasure of the Mikagedo also, which is the imitation of the fan belonging to the Emperor Gosakuramachi (1763—1813). No. 3 those used in the Imperial Court. No. 4 by nobles, No. 5 by priest. The shapes and figures of those fans, if adapted to the export articles, there is no doubt, some improvement will be made.

No.	NAME.	VALUE A PIECE.
		Yen.
1	Akome Fan.. .. .	25.000
2	Hi Ōgi	15.000
3	Hi Ōgi	15.000
4	Hi Ōgi	0.500
5	Hi Ōgi	0.500

SPECIMENS OF FANS FOR HOME USE.

(H. Department, Group 106, Class 667.)

The fans numbered 6, 8, 11 are used by nobles, Nos. 7, 9, 10 by priest, Nos. 12, 13 by samurai, No. 14 in the time of court foot ball, No. 15 in the time dancing, No. 16 in the time of war (in camp.), No. 17 in ordinary time (in peace).

Round Fans are generally used without classical forms.

FAN.

No.	NAME.	VALUE OF A PIECE.
		Yen.
6	Chūkei	3.000
7	Chūkei	2.500
8	Summer Fans	2.000
9	Summer Fans	1.500
10	Setsu do Fans	0.800
11	Palace Fans	1.200
12	Palace Fans	0.500
13	Kodenchiū	0.200
14	Meniawari Fans	2.000
15	Dance Fans.. .. .	3.000
16	Military Fans	3.500
17	Thin Ribbed Fans	0.100

ROUND FANS.

No.	VALUE OF A PIECE.	No.	VALUE OF A PIECE.	No.	VALUE OF A PIECE.
	Yen.		Yen.		Yen.
1	1.500	7	0.180	13	0.100
2	1.600	8	0.150	14	0.040
3	1.000	9	0.250	15	0.120
4	0.380	10	0.015	16	0.040
5	0.060	11	0.150	17	0.100
6	0.060	12	0.100	18	0.150

SPECIMENS OF FANS FOR EXPORT.

(H. Department, Group 100, Class 667.)

As for the revolution of fans it will be convenient if the order is followed.

The fans from No. 1 to No. 13 have prevailed during 1870—78. During that time the outside ribs of white bamboo were painted black with gold lacquering on them, or the ribs were made of bones, or the colour of paper was changed. But as to the shape and size there were no great change. In about 1879—1880 the modification of priests' fan commenced but the old shape yet remained. In about 1883—1884 dancing fans began to be imitated and old shape began to disappear and almost all fans were ornamented with thread. About 1887 the great ribs were made into cloven shape and breadth was widened. (*The old shaped fans having 30 ribs, of which were lessened to 8 or 6.*) The cloven ribs were again divided to 3 or 4 branches; but in the present days, the narrow breadths prevail.

The round fan came into fashion since 1877 and there is not much change. In the following price list, the fans to be sold in more than one hundred are given.

No.	VALUE OF A PIECE.	No.	VALUE OF A PIECE.	No.	VALUE OF A PIECE.
	Yen.		Yen.		Yen.
1	0.045	25	0.150	49	0.830
2	0.055	26	0.200	50	0.300
3	0.050	27	0.220	*51	0.055
4	0.050	28	0.200	52	0.018
5	0.060	29	0.395	53	0.0038
6	0.120	30	0.270	54	0.0050
7	0.080	31	0.085	55	0.040
8	0.150	32	0.170	56	0.075
9	0.070	33	0.100	57	0.040
10	0.135	34	0.100	58	0.045
11	0.060	35	0.250	59	0.035
12	0.500	36	0.280	60	0.200
13	0.300	37	0.250	61	0.100
14	0.180	38	0.130	62	0.035
15	0.135	39	0.300	63	0.120
16	0.135	40	0.190	64	0.075
17	0.180	41	0.190	65	0.120
18	1.300	42	0.270	66	0.060
19	0.050	43	0.200	67	0.050
20	0.180	44	0.330	78	0.065
21	0.300	45	0.300	69	0.070
22	0.300	46	0.600	70	0.965
23	0.100	47	0.530		
24	0.070	48	0.300		

* The figures of 51—70 are the values of Round Fans.

SPECIMENS OF FIGURED LEATHERS.

(H. Department, Group 110, Class 702.)

In the leathers the figures, pictures or plaids are impressed, mostly used in the articles of war, and in pouches. From No. 1 to 60 are used in the articles of war, and from 60 to 90 for pouches.

No.	NAME.	VALUE (1 SUN SQ.)
		Yen.
1	Tempiō Leather	0.010
2	"Hachimān" Letter Figured Leather	0.010
3	Shōhei Leather	0.010
4	Lion Round Figured Leather	0.010
5	Round Floral Figured Leather	0.010
6	Hō-ō Round Figured Leather	0.010
7	Lion Figured Leather	0.010
8	Fudōson Figured Leather	0.010
9	Lion Round Figured Leather	0.010

No.	NAME.	VALUE	
		(1 SUN SQ.)	Yen.
10	Round Figured Picture Leather		0.010
11	Round Floral Figured Leather		0.010
12	Round Floral Figured Leather		0.010
13	Coloured Katsumi Leather		0.010
14	Thunder Figured Leather		0.010
15	Floral Diamond-shaped Figured Leather		0.010
16	Tortoise-shell Shape Figured Leather		0.010
17	Murasaki Leather		0.010
18	Shigeme Knot Leather		0.010
19	Purple Yuwata Leather		0.010
20	Black Yuwata Leather		0.010
21	Yuwata Leather		0.010
22	Variagated Colours Leather		0.010
23	Rope-like Surface Leather		0.010
24	Knotted Rope-like Surface Leather		0.010
25	Okatsumi Leather		0.010
26	Purple Brocade Leather		0.013
27	Tea-coloured Butterfly Figured Leather		0.010
28	Brocade Leather		0.010
29	Small Cherry Flower Figured Leather		0.010
30	Coloured Cherry Flower Figured Leather		0.010
31	Black Small Cherry Flower Figured Leather		0.010
32	Minute Butterfly and Birds Figured Leather		0.010
33	Kakutsumagata Shōbu Leather		0.015
34	Sagitachi Shōbu Leather		0.015
35	Rogan Shōbu Leather		0.015
36	Maple-tree and Deer Figured Shōbu Leather		0.015
37	Horse Figured Shōbu Leather		0.015
38	Tomoe Figured Shōbu Leather		0.015
39	Butterfly and Birds Figured Leather		0.015
40	Shida Figured Leather		0.010
41	Omodaka Figured Leather		0.010
42	Tea-coloured Katsumi Figured Leather		0.010
43	Cherry and Water Figured Leather		0.010
44	Diamond-shaped Chrysanthemum Small Figured Leather		0.010
45	Tate Waku Cloud Figured Leather		0.010
46	Ōshiai Chrysanthemum Figured Leather		0.010
47	Wave Figured Leather		0.010
48	Buff-coloured Birds and Flower Figured Leather		0.010
49	Yukiwa Figured Leather		0.010
50	Buff-coloured Old Figured Leather		0.010
51	Chrysanthemum and Kiri Figured Leather		0.010
52	Buff-coloured Chrysanthemum Figured Leather		0.010
53	Waves and Chidori Figured Leather		0.010
54	Large Quail Shibori Leather		0.250
55	Tea-coloured Quail Shibori Leather		0.250
56	Small Quail Shibori Leather		0.250
57	Tea-coloured Rope-like Surface Quail Shibori Leather		0.250
58	Uzuramaki Leather		0.130
59	Coloured Pine, Bamboo, and Pine Tree Figured Leather		0.010
60	Shokkōgata Figured Leather		0.010
61	Peony Flower Figured Leather		0.010
62	Coloured Ōshiai Chrysanthemum Figured Leather		0.015
63	Tatewaku Floral Round Figured Leather		0.016

No.	NAME.	VALUE (1 SUN SQ.)
		Yen.
64	Coloured Kodomoe Figured Leather.. ..	0.013
65	Coloured Tomoe Figured Leather	0.013
66	Ancient Figured Leather	0.013
67	Round Fan Sarasa Figured Leather.. ..	0.013
68	Lengthwise Striped Figured Leather	0.013
69	Diamond-shaped Figured Leather	0.013
70	Coloured Cloud Hō-ō Figured Leather	0.013
71	Tea-coloured Flower and Bird Sarasa Figured Leather ..	0.014
72	Tea-coloured Ancient Figured Leather	0.025
73	Tea-coloured Ancient Figured Leather	0.025
74	Tea-coloured Hō-ō Figured Leather.. ..	0.025
75	Old Figured Leather	0.025
76	Kikusui Figured Leather	0.020
77	Waves and Chidori Figured Leather	0.020
78	Old Floral Figured Leather	0.020
79	Water and Rabbit Figured Leather	0.020
80	Water and Tomoe Figured Leather	0.014
81	Kasumi and Chidori Figured Leather	0.014
82	Flower Collection Picture Leather	0.020
83	Kusudama Picture Leather	0.020
84	Couch-shell Collection Picture Leather	0.020
85	Shikishi Picture Leather	0.020
86	Buddha Picture Figured Leather	0.020
87	Hiakunin-shu Picture Leather	0.020
88	Grass Flowers Pictorial Leather	0.020
89	Toys Pictorial Leather	0.020
90	Fan Paper Picture Leather	0.020

SPECIMENS OF METALLIC NETTINGS.

(H. Department, Group 117, Class 742.)

The metallic nettings are greatly used, and the manufactures are accordingly extensive. Of late years architectural changes gradually encroaching, the stoves began to be set and the necessity of stove screen were felt, the demand for the nettings consequently increased. The most substantial and comely ones are shown here below.

No.	VALUE (1 Sun sq.)	No.	VALUE (1 Sun sq.)	No.	VALUE (1 Sun sq.)
	Yen.		Yen.		Yen.
1	0.095	15	0.095	29	0.095
2	0.070	16	0.095	30	0.095
3	0.095	17	0.095	31	0.095
4	0.095	18	0.095	32	0.070
5	0.095	19	0.095	33	0.095
6	0.070	20	0.040	34	0.020
7	0.095	21	0.020	35	0.040
8	0.070	22	0.040	36	0.020
9	0.095	23	0.095	37	0.095
10	0.095	24	0.095	38	0.095
11	0.095	25	0.095	39	0.020
12	0.095	26	0.040	40	0.020
13	0.070	27	0.020	41	0.095
14	0.070	28	0.095	42	0.020

SPECIMENS OF JOINTS IN WOOD WORKS.

(H. Department, Group 117.)

The joints are the most important part in the wood-works. The strength of boxes, tables, door leafs, and frame works etc. depends upon this. The way in which they are applied to is given below, but the price cannot be fixed as it varies according to the size and nature of timbers.

No.	NAME OF JOINTS.	PURPOSE.
1	Chigiri Uchi Hozo.. ..	Boxes.
2	Ippō Tadzuna Hozo	Braziers.
3	Uchi Hozo	Boxes.
4	Masu Hozo.. ..	Small Boxes.
5	Iri Wa	Boxes.
6	Chigiri Hozo	Braziers.
7	Gowai Hozo Iri Wa	Boxes.
8	Orimawashi Chigiri Hozo.. ..	Braziers.
9	Masugumi Hozo	Braziers.
10	Uchinuki Keshi Hozo	Boxes.
11	Orimawashi Yahazu Hozo... ..	Braziers.
12	Shiinomi Hozo	Small Boxes.
13	Kudaki Arihō Hashibami	Shelf (Lacquered).
14	Uchi Hozo Koguchi Hashibami	Selves (Lacquered).
15	Arizon Ura Hashibami	Kendon (box) and Tables.
16	Uchi Hozo Hashibami	{ All kinds of doors which open on hinges.

No.	NAME OF JOINTS,	PURPOSE.
17	Ichimai Hozo Bintadome	Katamen door frame.
18	Menkoshi Uchikomi Nimai Hozo ..	Door Frames.
19	{ Shikisan Nimai Hozo Uchidashi Tsuba- dome	} Door Kamachi Surizan.
20	Katamen Hokodome	Frames.
21	Marudome Nimai Hozo	Frames.
22	Sammai Uchidashi Hozo Mengoshi ..	Door Frames.
23	Uchidashi Mengoshi Nimai Hozo ..	Door Frames.
24	Ichimai Kawa Hozo Hakodome	Frames.
25	Marudome Nimai Hakoaikaki	Frames.
26	Uwaba Menkoshi Iri Wa Nimai Hozo ..	Fire place Frames.
27	Iri Wa Aridome	Fire place Frames.
28	Marudome Uchikudaki Ari	Frames.
29	Dai Wa Hozo Hana Aridome	Rings of Stands.
30	Nimai Kama Mendome	Door Frames.
31	Ryomen Ichimai Hozo Hakodome ..	Door Frames.
32	Nimai Kama Hozo Mendome	Frames.



X

HINTS, TO TOURISTS,
ON
CURIO BUYING.

HIS ROYAL HIGHNESS THE DUKE OF CONNAUGHT SAID: "MR.
DEAKIN, YOU CERTAINLY HAVE THE FINEST AND LARGEST
COLLECTION OF JAPANESE ART WORKS IT HAS EVER
BEEN MY PLEASURE TO SEE."

PRESENTED, WITH COMPLIMENTS OF
DEAKIN BROS. & Co.,
ART CURIO DEALERS,

GRAND HOTEL ANNEX
(OPEN TILL 10 P. M.)
AND
16 BUND.

PALAZZIO VENDRAMIN,

VENICE, ITALY, MAY 10TH, 1890.

DEAR SIRs,—I AM INSTRUCTED IN THE NAME OF HIS ROYAL HIGHNESS THE COUNT OF BARDI TO TELL YOU THAT HE HAS ALWAYS BEEN ENTIRELY SATISFIED WITH ALL THE PURCHASES HE HAS MADE AT YOUR STORE, AND THAT, WITHOUT A DOUBT, YOUR ESTABLISHMENT IS THE BEST OF ITS KIND, IN EVERY WAY, THAT HE VISITED IN JAPAN. HE ALSO WISHES ME TO EXPRESS HIS ADMIRATION OF YOUR VERY SPLENDID COLLECTION, WHICH HE CONSIDERS THE BEST IN THE COUNTRY, AND ENTIRELY UNIQUE.

BELIEVE ME, DEAR SIR, WITH BEST WISHES,

COMTE HENRI LUCCHESI PALLI.

TO MESSRS. DEAKIN BROS. AND CO.,
YOKOHAMA, JAPAN.

“BRIEFLY THERE IS NO PLACE IN JAPAN TO BE SO DECISIVELY RECOMMENDED TO THE STUDENT OF JAPANESE ART WITH LIMITED TIME AT HIS DISPOSAL AS THE COLLECTION TO WHICH I AM RERERRING ON THE BUND AT YOKOHAMA (DEAKIN BROS. AND CO.), ESPECIALLY IF HE HAS TAKEN THE “CURIO FEVER,” A DANGEROUS MALADY, TOO WELL-KNOWN TO GLOBE TROTTERS VISITING JAPAN.”—EXTRACT FROM SIR EDWIN ARNOLD’S LETTER, “BY SEA AND LAND,” IN “DAILY TELEGRAPH,” MARCH 10TH, 1890.

MR. HENRY NORMAN, IN THE “PALL MALL GAZETTE,” SAID: “I HAVE PROWLED PRETTY MUCH ALL OVER YOKOHAMA AND TOKYO, SOMETIMES ALONE, AND SOMETIMES UNDER THE GUIDANCE OF A FRIENDLY EXPERT, AND I HAVE FINISHED BY COMING BACK FOR MOST OF THE THINGS I WANTED TO DEAKIN BROTHERS ON THE BUND.”

IN A HIGHLY COMPLIMENTARY NOTICE OF MESSRS. DEAKIN’S ESTABLISHMENT, “GARTH GRAFTON” WROTE, IN THE “MONTREAL STAR”: “FACING THE SEA, NOT FAR FROM THE QUAIN T SOUTHERN LOOKING GRAND HOTEL, IS THIS REMARKABLE SHOP, BELONGING TO A FIRM POPULARLY CALLED THE TIFFANY OF JAPAN.”

HINTS, TO TOURISTS,
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(IMPERIAL CREST.)

HINTS, TO TOURISTS, ON CURIO BUYING.

IT is but to repeat an oft-uttered truism to say, at this day, that the moment one reaches the shores of this interesting land the germs of the curio buying infection find a feeding ground on which, as surely as the ebb and flow of tide can not be stemmed, they develop. This being so, we are prompted to offer a few admonitory words to tourists visiting Japan, and we trust they may not prove profitless. The key note of this advice is, *do not purchase hurriedly*. Postpone investment until all the *reputable* curio establishments, of which there are several, have been visited, their stocks carefully inspected and compared; and until, in some measure, you can distinguish the chaste from the unchaste, the genuine from the counterfeit. This, after all, is not a power exceedingly

difficult of achievement, because it is to be presumed that every upright dealer will place in contrast the real and the unreal. And if this be done discernment of differences is a work of ease, and an impressive object lesson has been learnt. Considerable knowledge of the best artists and the nature of their products is gleaned if, during this impartial tour, mental or written notes are made. In saying this, however, we do not wish to be understood as committing ourselves to the statement that such an acquaintance with Japanese Art and its makers and sustainers as would fit one to compile a volume on the subject will follow—although in these days only scanty qualification and research seem to be deemed necessary before engaging in such a work—but a sufficient degree of intimacy to enable one to gather such specimens of the different art wares of Japan as will be artistically creditable, instead, as so often is the case, of securing merely a galaxy of indifferences, setting forth the story of defective judgment and rash purchase.

Do not be misled by the specious cry of those who “know where there is a rare collection of the choicest old curios ever discovered,” supposed to belong to some impoverished owner, who, in consequence of his straitened circumstances, will sell at any price &c., &c. This is an old artifice usually adopted by a few wily schemers who having succeeded in raking together the dregs and dross of the market, dub it “a rare collection belonging to Daimyo So-and-So,” when, in point of fact, Daimyo So-and-So had neither owned nor seen one of the pieces. Truly, if he had, he must have blushed for the retrogression of the Art of his country.

Avoid, too, those doubtful persons who seek to foist on you their services in assisting to buy or make a collection—those who “know where all the fine, old

curios are to be had." The friendliness of these surely belongs to that which Havard said was but

a name

Invented merely to betray credulity.

Their proffered assistance is "full of fair seeming" but in the end it appears as nothing truer than a "statesman's promise"—delusion. Under the guardianship of such as these, the purchaser pays from 10 per cent to 40 per cent more than would have been the case had he taken to heart our opening advice, or had he quietly selected the articles himself, aided by some friend whom he knows would shun the subterfuge of running up prices, for the sake of a "squeeze," to a point sometimes 50 per cent more than the original price asked by the dealer.

Shun also those who invite the tourist to watch the graceful movement of the comely *geisha* girls, perhaps to partake of a Japanese repast, or, may be, to visit a native theatre—all of which is paid for by the person who extends the invitation. To thoughtful people, the query how can this man afford to entertain in this manner must present itself? The answer is quite apparent. It is the old policy of throwing a sprat to catch a mackerel. The tourist indirectly pays, for the cost of his entertainment is most surely added to the price of the curios he purchases from his entertainers.

The sooner visitors grasp the common-sense fact that the ethics of business in Japan do not vary from those of other countries, the more profitable will it be for them. Nor is it to be credited that any dealer will sell for \$10 an article which is worth \$20. A buyer may at once conclude that he pays at least the market value. Is it reasonable to presume that business men, after coming to Japan with the object of prospering, will dispose of their wares for half the real value? If

there are any who conduct their businesses according to such a canon, it is well, in the interests of their connections, that they should be placed beyond the possibility of further pursuit in that course.

As every nook and cranny of Curiodom has been repeatedly ransacked and re-ransacked during the last fifteen or twenty years by collectors and the finest experts, it is impossible that many valuable "finds" have escaped notice and purchase until this day. There is a ready market among the foreign dealers, many of whom have establishments in various parts of the world, for all choice and rare goods, and, in consequence of this extensive sale area, there is ever a ready demand for rare "pieces." However, it would be absurd to advance the contention that Japan is barren of fine curios. There are many, but they are rarely found, save in some rich Japanese godowns from whence they only pass at the beck of stern necessity. Occasionally, perhaps once per year, one of the past feudal lords of Japan will sell his collection entire, and at such times dealers will purchase all they can. They flock from all parts of Japan, and in the event of the collection being specially excellent fabulous prices are paid. It therefore follows that if a collector desires a rare, choice bit he most assuredly will have to pay a "choice" price for it. It is true that many of the less costly wares are pretty and ornate, but why come to Japan to purchase such articles and pay freight home when there they can be purchased for probably one-half the prices asked in Japan?

Having dealt with the modes pursued by certain others, it is perhaps fitting that we should say a few words concerning ourselves. In common with many reputable dealers in Japan, and others who are not reputable, we are here to do business, and that statement carries

with it the intention to make money. This, however, we only seek to accomplish by business principles. Every article sold from our establishment, be it a five cent tea-pot or a fifteen thousand dollars gold lacquer screen or cabinet, must yield a fair margin of profit.

There is at our store a varied and chaste assortment of Japanese art works. And it is to be mentioned that during the past year we have added to our premises a series of workshops where may be seen the complete process of cloisonné, cabinet and furniture workers, and one of the most expert wood carvers of Japan at work.

We welcome all visitors, whether they come to purchase or to inspect.

We have no branch stores, or connection with other shops.

All goods are marked in plain figures (from these prices there will be no deviation), and are guaranteed as represented.

Soliciting the honour of a call,

We Remain,

Respectfully Yours,

DEAKIN BROS. & Co.,

16 Bund,

Yokohama, Japan.

JAPANESE ART.

Dr. Griffis, in *The Mikado's Empire*, tells us how Japanese Art had its birth in mercy, about the time of Christ's advent on earth. A custom long adhered to among the noble classes was the burial of the living with the dead (*jun-shi*, dying with the master). The wife, and one or more servants, of the deceased lord committed suicide, and were inhumed with him. The Mikado Suinin, son of Sujin, attempted (B. C. 2) to abolish the cruel rite by Imperial edict. Yet the old fashion was not immediately abandoned. In A. D. 3 the Empress died. Nomi no Sukune, a courtier, having made some clay images, succeeded in having these substituted for the living victims. This was the birth of Japanese Art. Henceforth these products of man's unfolding genius stood vicarious for the breathing beings they simulated. For this reform the originator was given the honourable designation, Haji (*ha*, clay ; *shi ji*, teacher = clay-image teacher, or artist). To come down to the seventeenth and eighteenth century, we find the Art of Japan vigorous, owing to the absence of dissension in the land. This forward movement was noticeable in every branch. Mr. Marcus B. Huish, in "Japan and its Arts," believes that the policy of isolation from other nations, much as it injured the country, was nothing less than a blessing to its Art, which continued to be "pure, individual and unmechanical." Believing that visitors to Japan will be able to form their own conception of what its Art is to day, and to decide for themselves whether it is retrograding under the influences at work, we will, with this brief introduction, proceed to notice some of the wares most admired.

SATSUMA.

This is the royal ware of Japan. Observe the creamy colour of the ware and the peculiar crackle finish. This is all done by the skilful potters, but it is left for the painters to beautify its surface with multitudinous decorations. First, the plain porcelain is designed in black, then worked with brightest pigments and much pure gold, into its final glory. Observe the delicacy with which they have touched the surface, and left the delicate design behind; see the tracery growing beneath their deft fingers. There is a bit of history in connection with Satsuma ware which is not out of place here. Some 290 odd years ago, the then reigning Prince of Satsuma made an invasion of Corea and conquered it. He discovered among the Coreans some remarkable potters manufacturing from their common clay, and remembering a fine bank of clay in the district of Satsuma, he induced a small colony of these people to go back with him and settle in Japan. These Coreans settled there, and began work on this bank of clay, which is the only one of its peculiar kind thus far discovered. They thus became the originators of this most beautiful ware, with all its wealth of floral decoration, under the patronage of this Prince of Satsuma, and for many years the Satsuma ware was not placed on sale, but given away as a special gift of royal favor, and used exclusively by the Mikado and nobility. These Coreans intermarried with the Japanese, and their descendants are to-day working this bank of clay, though it was only within the last few years that they became naturalized. The following quotation is from Mr. Ernest Hart's lecture's delivered at the Society of Arts, on the Historic Arts of Japan: "There is a tradition firmly rooted, and which I believe to be well founded, that in 1670

(about 70 years after the introduction of Corean potters) coloured enamel faïence of a more decorative character was produced in small quantities at the private factory of the Prince by Tangen, the pupil of the famous Tanyu, who was sent for to Satsuma to decorate some pieces for the Prince. This Satsuma-Tangen ware is especially described lately by Captain Brinkley as being among the rarest treasures of the collections of Japan. No other specimen is known in Europe than a flat yellow bottle in my collection. Unlike any other specimens of Satsuma ware it is decorated with figures painted in brown and of the Kano school. The enamel decoration at the upper and lower edge, and the character of the paste, are quite decisive of its origin. But for a careful examination of the paste and of this enamel border, you would not recognize it as of Satsuma ware. This, then, must be considered a unique specimen of the Satsuma-Tangen ware, which is of the utmost rarity even in Japan. In the seventeenth century the kilns of Satsuma were little employed and lost their fame; but about the year 1700 the Prince Yeio restored the fabric by employing Kin and Kuwabara, who created a peculiar hard close-grained ware, with the cream coloured finely crackled glaze, and with a paste as dense as ivory; with limited decoration in enamelled diaper and conventional flowers and dragons. This is the type which established the unrivalled reputation of Satsuma for the speciality of its faïence; but it was only about the year 1765, or as some people say 1785, that this perfected and characteristic variety of Satsuma ware which we know was produced under the patronage of Shimadsu Nawonobu, by an artist named Honda Yanosuke, and it is to this period that belongs the finest ware. This old Satsuma was never in the market, and was unprocurable in Europe until quite

lately. It was made only for the Prince, for his friends, and for gifts to the Court. You may judge of its perfection by the close-grained ivory base, its delicate crackle, its hard, sharp modelling, its perfectly brilliant and delicately coloured enamels, its gilding which is like jeweller's work. If you compare it with the masses of modern Satsuma ware, decorated at Kyoto nowadays for the European markets with designs of saints, deities, warriors, highly gilded and often surcharged with ornament, you will be able to distinguish between the rare original products of the princely factory and the masses of modern Kyoto, so-called Satsuma, with which the market is now flooded; some so rare that you will hardly recognize them as Satsuma until you examine the paste of this old monochrome, greenish black Satsuma vase and of the *flambe* Satsuma vase. I would recommend you to study closely specimens of genuine old Satsuma to note the extreme solidity of the ware, its restrained and graceful decoration, its ivory like surface, the sharp cutting hardness of its edges, the perfection of its gilding and the unfailing accuracy of outline of its enamels, their brilliant yet delicate colour, because there is nothing as to which so many delusions prevail as to what is called old Satsuma. There are few collections, however small, which do not boast something which is called old Satsuma. From my experience of many great collections, I am compelled to say that I do not know of a dozen specimens in this country; and, indeed, while there is nothing so abundant as highly decorated, modern pieces of Satsuma, there is nothing so rare as fine and authentic specimens of the real old ware. There are no marks by which Satsuma may be known except the study of its paste, its crackle, its enamels, and its gilding, and to distinguish between the new and the old would seem,

from the numerous deceptions from which I have known both dealers and collectors to suffer, to be one of the most difficult arts for the Japanese collector to acquire. I believe, however, if you will for half an-hour carefully compare authentic old specimens with any modern specimens which you choose to put alongside of them, you will be able to master that art."

If the reader will favour us with a call we shall have pleasure in displaying the various classes of a ware which has justly been described as the most aristocratic, the most delicately decorated, and the most perfect, in its technical qualities, of any faïence which Japan has produced, and which has an artistic as well as historic interest.



(SATSUMA CREST.)

OTHER CLASSES OF OLD JAPANESE PORCELAIN AND FAIENCE.

Mr. Ernest Hart, in the lectures we have before alluded to, said:—"By the common consent of the students of ceramic art, the Japanese were, and are, the most accomplished and artistic potters that the world has seen. In some departments they were excelled as artistic makers by the Chinese, their original masters. The fire and the brilliancy of the vitrified enamels, and the lustrous glazes of the old Chinese porcelain works have never been

equalled. The monochrome porcelain of the Ming and Kienlong periods, the ruby, *sang du bœuf*, imperial yellow, crushed strawberry, peach bloom, moonlight blue, camellia green, apple green, and other rare enamel porcelains of old China always have been, and still remain, inimitable. They are as much admired, and even more highly prized, to this day in Japan than even in China or in Europe. Yet, strangely enough, it was to the quality of the porcelain of Japan that its great artistic fame was chiefly due in Europe during the seventeenth and eighteenth centuries. The peculiar kind of porcelain known in this country as old Japan ware, and described by Jacquemart as the “chrysanthemo-pæonienne” ware, was imported in great quantities through the Dutch monopolists of Deshima, and formed the delight of patrician buyers for upwards of two hundred years. It was chiefly the product of the province of Hizen, and still forms the basis of the great collections of Dresden, and of many of the great houses and palaces of Europe. It is not to be undervalued. In some of the fine specimens, paste, glaze, colour, and decoration are alike admirable. The passion for it proved a mine of wealth to Dutch traders; but it was at the same time somewhat gaudy and monotonous in decoration. It was always a secondary product, manufactured exclusively to please the European taste, and in European sizes and shapes; the huge vases and *garnitures*; the great bowls, and the long series of plates of this old Japan ware had nothing in common with the Japanese taste, and are of little value now beyond their traditional interest, and the recollection of the part they once played in the decorative and domestic history of Europe. The glory of old Japan in its porcelain were the works of the private kilns of certain of the princes, and the choicest works of the old

makers of blue and white and of Kakiyemon and Kenzan, which were little seen in Europe until the last thirty years. The speciality of the Japanese keramists was their faïence and hard stoneware, the Raku ware, Kutani, Bizen, Oribe, and old Satsuma. Of these highly characteristic specimens of the work of the old Japanese faïence, few specimens were seen in this country till after the downfall of the Tycoons. Happily, Mr. Franks, in this country, early appreciated the importance of studying the artistic pottery of old Japan. The collections at the South Kensington Museum, and those which he has just presented to the nation at the British Museum, are of great value in illustrating this previously almost unknown chapter in keramics; his excellent catalogues will dispense me from the necessity of much detail as to the individual potters and marks. I propose, therefore, only briefly to illustrate to you this interesting subject by a running commentary on the succession of the chief schools and of the great masters whose story has not hitherto been told in this country.

BLUE AND WHITE PORCELAIN.—SHONSUI GORODAYU.

“To speak first of porcelain, which has, by a generally accepted European convention, received the first place in the keramic art, I would call your attention to some examples of the blue and white porcelain of Japan, the beauty of which is insufficiently appreciated, inasmuch as we have accustomed ourselves exclusively to admire the blue and white of the old Chinese potters.

“The first introduction of the manufacture of porcelain into Japan dates back not earlier than 1530, when one Gorodayu Shonsui, of the province of Ise, travelled to China to learn some of the secrets of the porcelain makers of Foochow, and brought to Arita in Hizen the art of mixing and baking porcelain, and decorating it

with blue under the glaze. He brought with him from China the clay, the glaze, and the colour, for at that time the ingredients of porcelain had not been found, nor were the secrets of compounding it known in Japan. Thus he was limited both in his methods and the amount of his product, but he showed considerable skill, and has an enduring fame as the father of Japanese porcelain under glaze, and his works were mostly small in size. Two pupils of Gorodayu carried on his tradition, Gorohachi and Goroshichi, but for want of material the fabric languished, and its reputation declined until about 1608, when Risampeï, the Korean potter, was brought by Nabeshima Naoshime, the ancestor of Prince Nabeshima, one of the Japanese generals of the Taiko, to Arita; he found, on the slopes of the mountain, the feldspathic material which was needed for the production of porcelain. For forty years blue and white porcelain continued to be made here, but the Japanese keramist did not acquire the art of using vitrifiable enamels, which required the second firing over the glaze at a low temperature—the secret of the Chinese coloured enamel porcelain vases. His authentic work is excessively rare, my collection contains one specimen and I know of none other in Europe.

PORCELAIN DECORATED OVER THE GLAZE. TOKUZAYEMON
AND KAKIYEMON.

“This was first introduced into Japan by a certain Tokuzayemon about 1647, who learnt the Chinese art. He, however, was not himself a skilful potter or artist, and it was his great contemporary, Kakiyemon, who having, it is said, acquired the secrets of Tokuzayemon, freed himself from the fetters of Chinese traditions, and produced porcelain decorated with designs in coloured enamel which created a new epoch in porcelain.

Kakiyemon attained at once to a degree of perfection in the manner of decoration and perfection of porcelain, which has never been surpassed. His porcelain has a fine white hard base, which rings with clear bell-like sound. In the most beautiful specimens of his work the milk-white glaze is sparsely decorated with finely drawn designs of the bamboo and the plum blossom. Sometimes his ware is decorated here and there with corn sheaves and flowers, and sometimes also with fluttering birds. The colouring of his enamels is characteristic; generally it is in dull red, pale apple green, and lilac blue. A basin in my collection will be recognised as having been the parent of the famous ware of Dresden, of Chantilly, and of Chelsea—all of which factories, at a later date, so closely imitated the white porcelain and the decoration of Kakiyemon that, for many years, specimens of his handiwork being unfamiliar in Europe, it was difficult to distinguish the originals from the copies. Kakiyemon worked also in faïence and terra cotta.

THE PORCELAIN OF KAMEYAMA, HIRADO AND NABESHIMA.

“Making of blue and white porcelain, decorated under glaze at a single firing, continued to flourish at Imari, and some specimens in my collection rival in depth of transparency and in gradation of translucent cobalt blue, the fine work of the Chinese artists so much valued in their hawthorn pots. The artists of Kameyama and of Hirado also produced in the eighteenth century a blue and white of exquisite beauty; especially notable is the blue and white porcelain of Hirado ware. A private factory was established in 1740 by Matsura, prince of Hirado, who watched over the products of his factory, and reserved them for presents to the Tokugawa princes and his private friends. This factory was established at

Mikawa-uchi, hence was often called Mikawa-uchi ware. The procelain was never in commerce, and is therefore excessively rare; in Europe it is justly highly prized. Captain Brinkley calls attention to the extreme delicacy of the body of the paste, which he states was finely powdered, strained and purified, while the glazes were prepared with long and most minute care. The blue is pure and soft, different altogether from the intense cobalt of old Chinese ware. The delicacy of the drawing and perfection of the firing are not excelled, and by many considered to be unapproached, by any porcelain over all Japan or China. The white porcelain animals, birds, and figures of Hirado, and the sprays of flowers, all of this period, are of extreme beauty and value, representing the direct progenitors of the products of old Dresden. Hirado ware is still produced, but it is now of a purely commercial character. The pieces are finely decorated, and have excellent qualities, but they are wanting in delicacy of paste, in the beauty of the milk-white glaze. In the old ware, you will notice that several are engraved in the biscuit under the glaze, and that in delicate modelling and all artistic qualities, they are unsurpassable by any Chinese or European originals, while in general taste and freedom of design they are far superior to the old Chinese work.

KUTANI PORCELAIN.

“ Another famous school of porcelain is the variety known as the Kutani ware. Porcelain of Kutani was made at the village of Kutani, in the province of Kaga. It was commenced by Goto Saijiro, who was an artist in pottery and excelled in figures, whom Prince Mayeda sent in 1658 to Arita (Hizen) to study the production of porcelain. Saijiro, on his return, made only small pieces with the material which he brought from Hizen.

The objects of this period are pure porcelain, decorated in red, green, yellow, violet, gold and silver. By subsequent experiments he discovered near the village of Kutani a clay which supplied the elements of success to the local factory. This discovery enabled the pupils of Saijiro to produce more important works. These artisans had not, however, the artistic skill to produce finely-decorated pieces. Kudzumi Morikage, the eminent pupil of Tanyu, came to Kaga towards the end of the seventeenth century, and gave the aid of his brush. He introduced freedom of design in the Kaga porcelain, and treated a great variety of subjects, as well as the Karako, or Chinese. These specimens of Morikage's work are highly appreciated. They are in peculiar tones of green, violet and yellow, and rarely red. This is the Ao-Kutani, or green Kutani. These were pure porcelain. Later in the eighteenth century the material degenerated, and the Kutani of this period is almost a failure, and the earthy base is very dark, almost black.

“Later, Kutani entered on another period. In 1814 a certain Yoshidaya re-discovered in a Chinese work the technique of porcelain, and learnt the art of decoration with red, which Saijiro had introduced a hundred years before, but which had been lost. He made, once more, red porcelain decorated with gold, which was known as Hachiro-ye, or designs of Hachiro, the name of the designer who decorated these objects. In 1878, Yeiraku Zingoro, of Kioto, came to Kutani, and began to make red porcelain brilliantly decorated with gold. The gold of Yeiraku was applied in leaf, and is very brilliant, and its red very clear; that of the previous period is darker, and the gold is applied in powder. Yeiraku's mark is now much imitated and applied to inferior work.

PORCELAIN OF OWARI, OR SETO PORCELAIN.

“Seto, in the province of Owari, which produced so long pottery and porcelain, that it came to be known as Seto-mono, did not begin to produce porcelain till 1801, when a potter named Kato-Tamekichi, who had been to Arita, after four years’ study, returned to Seto and discovered porcelain earth. These are now the potteries which are the great sources of modern Japanese porcelain, and which are full of commercial activity. Its products have never been really artistic, although the workers were admirable artisans.

PORCELAIN OF KIYOMIZU (A SUBURB OF KIOTO).

“Unlike Owari, the Kiyomizu-yaki is an artistic ware. According to Mr. Kurokawa Mayori, author of the chapter on porcelain in the work called “Kogé Shirio,” published by the Museum of Tokio in the year 1868, Ninsei himself made porcelain at Kioto, in the seventeenth century, and later this branch of ceramics was continued by Otobaya-Kurobé (1751 to 1763). However, the blue and white porcelain, called Some-tsuké by the Japanese, was commenced at Kiyomizu, between 1804—17, by Takahashi Dôhachi, Wangé, Kité, Midzukoshi-Yoché. It is after the style of the porcelain of Hizen. These are highly artistic, but are not rare; and they are what are usually known as the Kiyomizu-yaki. The signs by which it may be recognised are the relative coarseness of its paste, and the relative blackness of the thicker parts of its blue decoration. Although Yeiraku made porcelain at Kiyomizu, it is known, not as Kiyomizu-yaki, but by his name, and is distinguished by his special red and gold decoration.

“There are other kinds of porcelain, such as porcelain of Inno, Tozan, Nakano, etc., which are objects of

collection, but which have not the same importance as schools and varieties as those of which I have spoken.

“But I must pass to faience, into which the Japanese threw all their genius as artists, potters, and decorators, and in which they knew how to produce subtle and surprising effects, delicate gradations of colour, and quaint forms, which give to Japanese pottery a unique place in the history of ceramics.

JAPANESE POTTERY AND FAIENCE.

“The Japanese passion for art pottery dates back to the influence of Giyogi and his successors in the ninth century. Japanese amateurs have for centuries cherished the richly-glazed celadon known as Seiji, copied from and rivalling Chinese originals; and in the twelfth century Toshiro, a potter, of Seto, in the province of Owari, had brought back from his travels in China some of the famous little enamelled faience tea powder jars and bowls which excited the enthusiasm of the Japanese, and became objects of a singular and almost idolatrous veneration by the Japanese nobles of successive generations. Amongst the specimens of ancient tea jars and tea bowls which I possess is one of the fifteenth century, bearing the description of Daibutsu-Hotoji, which has the traditional fame as a cup of Taiko-Sama, and was sent to Europe with a string of unneeded certificates. It is a typical specimen of the somewhat rustic but subtly coloured enamels which pleased the Japanese taste, and which were traditional with this kind of ware. In other specimens one can recognise the richness and depth of the glaze, and the subtle play of colours, but a smile will probably ensue when one hears that jars, similar to that illustrated at page 84, (of “Japan and its Arts”—a most unornate tea vessel) were esteemed such choice

morsels of pottery in Japan as to form the choicest gifts of a prince and the most treasured possessions of a daimio; that they have been the cause of wars, vendettas, and suicides; and have been sold for many times their weight in gold—sometimes as much as £500 was given for a single specimen of great traditional fame. They come to Europe clothed in rich brocades, and enclosed even in more than one rich lacquer box. They have not for us the special historical attraction or peculiar grounds of veneration which they had for the old Japanese, but they are interesting as examples of an early and somewhat superstitious taste and of political and social fashions, rather than as specimens in themselves of any supreme beauty. There are many other varieties of Japanese pottery: for example, the early Shigaraki ware, singularly rough, but showing no small skill in potting, and a certain primitive beauty in glaze; the Soma ware with its impressed horse, the heraldic emblem of the Prince of Soma; the Takatori ware with its lustrous glaze, of which I have a Hotei which is a fine specimen; the old Banko and Higo wares, the incised Yatsushiro, and the Kinko-zan ware, with its rich raised blue enamels; Toyosuké in characteristic brown and white reliefs; the brilliantly coloured Oribe with flashes of mottle glaze, and the fine old Imbe or Bizen ware, with its rich reddish-brown salt glaze, one of the oldest of Japanese wares, dating back at least from 400 to 500 years. Of the blue and white Bizen ware I have also some rare examples; but time would fail me even to speak in outline of the history of these ancient art potteries and their founders, I must refer you to my printed catalogue, to the works which I have already mentioned by Mr. Franks, to the chapter on pottery and porcelain in M. Gonse, and especially to the long forthcoming work

on Japanese porcelain and pottery by Captain Brinkley. This promises to be by far the most complete and valuable work on the subject, and will be necessary to every student and collector. I have time only to dwell upon three great varieties of faïence, which are the master-pieces of Japanese keramic art, viz., Ninsei ware, Kenzan ware, and Satsuma ware. After Kakiyemon, Ninsei and Kenzan are the two great dominant names in the history of Japanese pottery.

THE WORKS AND INFLUENCE OF NINSEI.

“Ninsei flourished from 1624 to the middle of that century. He was a contemporary of Kakiyemon, and belongs, therefore, to the golden age of Japanese decorative art. He was an artist first, and next a potter. He acquired the secrets which Tokuzayemon had a few years previously imported into Hizen of the Chinese art of working with enamels over glaze, a secret which, under the strictest penalties, Hirado factories vainly endeavoured to keep to themselves. Ninsei at once applied this art to the faïence of Kioto in 1653. He dealt with it in thoroughly Japanese taste, and showed an original genius in decoration. The products of Ninsei were the type of what is now commonly known as the buff or cream-coloured wares of Awata. This ware, which he made at Omuro, Kioto, is of hard paste, and has a very fine and uniform crackle like the roe of a fish; it is enamelled on a buff ground with floral designs in blue and green tints heightened with gold. This brilliant enamelled faïence, of which the authentic specimens bear his impressed seal, laid the foundation of a new national school of faïence which spread extensively and has been ever since continued. Soon Kioto was filled with kilns, which emulated the products and imitated the style of Ninsei. The authentic old

ware of Ninsei, of which I show you a series of specimens, is followed only at a distance by his successors, and most of the modern Awata ware utterly fails in glaze, crackle, and perfection of enamels, even to resemble the works of the master whom it imitates. His most famous follower was Kinko-zan, who, in the next generation and in the early part of the eighteenth century, brought to great perfection the Awata ware—a ware resembling that of Ninsei, and enamelled with similar colours, but especially with a deep purple enamel raised in relief. The old work of Kinko-zan may be recognised by the fineness and uniformity of the crackle, and the clearness and finish of the enamel designs. The modern Awata imitations of Ninsei and Kinko-zan are thin, cold, and dry in glaze, and the enamels are less carefully and perfectly applied. I am sorry to see the names of Kinko-zan and of Ninsei impressed and painted in gold on many obviously inferior modern specimens which have lately come under my notice. This system of forging old names upon worthless modern pieces is much to be deplored, and adds greatly to the difficulties of collection.

KENZAN, HIS WORK AND INFLUENCE.

“Next to Ninsei in time, but not less in fame or genius, or in the great influence which he exercised on Japanese faïence, was Kenzan, brother of the celebrated Ogata Korin, who lived from 1663 to 1743. He was a painter of the supremely impressionist style. In moments of relaxation he was also a lacquerer, as you have seen. As a potter he was supreme, and introduced into the decoration of pottery a new and highly original style of decoration of surfaces, with free-hand impressionist drawings of birds, flowers, grasses, and delicately suggested landscapes in coloured enamels. His style

not only created a new school in the pottery of his country, but still influences in the highest degree all our modern European decorated porcelain. Until the time of Kenzan, this freely-sketched floral decoration was unknown on porcelain or china. In looking at Kenzan ware perhaps your first impression will be to say at once, Yes, but this is in many respects like what we see now on modern china, and there is nothing original about it. That is the observation often made. It is just the same naïve tribute to his genius which is sometimes paid by the uneducated visitor to a representation of one of Shakespeare's plays, when he says, All this cannot be new, I have heard so many of these lines before. Kenzan's delicately pencilled flowers, lightly touched landscapes, his tufts of grass, this view of Fusiyama, displayed as through a mist, strike you as old familiar friends in the decoration of porcelain, because the genius of Kenzan gave the cue to all the potters of Japan, and subsequently to all keramic decorators of the world, when they became acquainted with the products of his genius. These are the originals from which our modern school of decoration chiefly spring. I recommend them to your study, for they are as thoroughly accordant with modern taste as with the Oriental notions of the primitive Japanese. Kenzan was a poet also, and he often wrote his verses with his own hand on his landscapes, as you see in some of the specimens. All his pieces are signed with his bold monogram. I am sorry to say that even that has lately been imitated by an accomplished modern potter, Tanzan, who, however, I believe had no intention of deceiving when he did so, but intended it as homage to the old master; of which, however, unfair advantage is sometimes taken in passing off the pieces as if they were the original pieces of

Kenzan. Kenzan passed a great part of his life at Kyoto ; later he went to Yedo, where he made pottery of softer paste. His pieces belong to two periods, Kenzan ware of Imado, and Kenzan ware of Kyoto. The paste of his Kyoto ware is often inferior, but its decoration is admirable. There is about the work of Kenzan a certain archaism and a masterly roughness and boldness which sometimes shock the modern eye. They must be looked at as the products of an impressionist artist of the seventeenth century, and belonging to an Oriental who preferred a suggestive to an imitative art. They are among the rarest and most precious products of the great school of Japanese pottery."

Regarding Satsuma, we have already quoted.



(THE KAGA CREST.)

SHIPPO OR CLOISONNÉ WARE.

There is nothing in the line of pottery, possibly, that is quite so full of charm as the ware called *cloisonné* by the French, and *Shippo* by the Japanese. It would seem fitting that the latter name ought to take precedence inasmuch as the Japanese were the creators of this ware, so fascinating and attractive to the eye on account of its beautiful contour of design, glory of colour and wondrous finish. Those desirous of seeing the process of *cloisonné* can, as we have before mentioned, do so at

our establishment where they will be gladly received. In telling the story of manufacture, it is necessary we should commence at the inception by calling forth the gentleman who trepans the vase or plaque to the required shape.

THE COPPERSMITH.

A weird creature is the coppersmith—fit fashioner of this marvellous enamelled ware. For he it is who cuts and moulds the copper sheets into form, and binds the edges and supplies the little rims upon which it rests. He draws forth his anvil—a rough log with a bent bar of iron thrust in, having only a few inches of polished surface at the end—upon which he shapes his work. In a vase he deftly draws the edges of the copper together in the fashion called “dovetailing,” and when hammered the joining can scarcely be detected. A process not always visible to the casual visitor is when he passes out to his furnace in the rear to fuse these joined parts into a solid whole. Very primitive is the little furnace and forge. When the smith places the copper plaque in the midst of the coals and blows it to a red heat, one hand on the bellows and with the other waving a great palm-leaf fan in the air, just above the bed of coals which soon is made into a lurid mass, he is a fantastic figure, something like a theatrical gnome engaged in the weaving of a spell. When fused to his satisfaction, he picks out the vessel, and when cooled hammers it bright again and hands it over to the next worker.

THE DESIGNER.

The designer is a man of genius. Fertile in the conception of beautiful forms, swift in their transference, he takes the copper vase, or plaque, and, with great exactitude of outline, draws on its face the thousand teeming fancies of his brain—the delicate and intricate

tracing of Japanese artistic imagination of bird, flower, beast, or 'scape of land or sea. The "piece," its face bearing a cobweb of outline, then passes on to the next artist, and here is to be seen the most interesting of all the stages—

THE WIRE WORKER.

His skill is with silver and brass wire, which he clips into tiny fragments and pinches into shape of tendril, petal, or ornament according to the outline drawing of the article he has in hand, curved in daintiest serpentine coils to the design laid out. These miniature curves in brass and silver are affixed over the drawing on the face of the vessel or plate and, under the influence of a kind of cement, there they adhere, standing out from the surface like filigree work. Exquisite and beautiful are these designs, but to none, save those who have a trained eye for the work, does the beauty and exquisiteness of the design yet appear in its fulness. Sometimes the subject is "the rising lily's snowy grace," or a view of the sacred mountain of Japan (Fujiyama), or a faint village scene from a distance, while above in the border is coiled the mythic dragon, and an intricate ornamentation finishes the base below.

After the wire process is finished, then it is fused, thus fastening the wires to the copper body; then follow the coatings in enamel in the different colours, fused six to twelve times in this process. The chief interest lies, at this time, with the foreman, who is in possession of the mysteries of Shippo or Cloisonné manufacture, and who mixes the enamels and colours according to his secret knowledge. To the polisher is finally handed a vase or plaque with a rough surface, giving no hint of the beauty beneath. Hour after hour the polisher patiently sits with an expectant look on his face, polish-

ing—polishing, as though there were nothing else to be done in a lifetime. But gradually the roughness disappears, and there is displayed all the perfection of design and colour. The coppersmith, the designer, the wire-worker, the filler, the mixer and the finisher—in all, the skill and patience of six men—are required to produce one of these marvellously beautiful pottery gems; the time, from fifty to two hundred days.

Perhaps it is the royal colouring that makes Cloisonné or Shippo appear so beautiful. The combination of reds and yellows and browns with a highly polished surface, all set with tiny threads of what appear to be gold, making it a feast for the eye.



(THE CHOSHU CREST.)

Next door to our Cloisonné workers, with his heart in his work, will be found that famed

WOOD CARVER

Hannanuma, who, in his particular line, is justly said to be the most skilful workman in Japan. Deftly he plies his simple tools and imparts to the inanimate all the outward semblances of life save actual animation, whether the subject sufficiently partakes of the demoniacal to tempt the lines

What brutal mischief sits upon his brow !
He may be honest, but he looks damnation,

or the lithesome, jovial jinrikishaman between his shafts, or the frowning mail-donned warrior with weapon

in hand. Indeed, he is equally successful in all his manifold studies in wood.

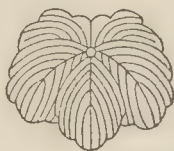
Nothing more unique and wonderful, to be born suddenly in the midst of conventionalized art, is to be found in any land than the wood-carvings of human figures on exhibition amid our other art-treasures. They are faithful representations of individuals in Japan, marvellous in anatomy, colouring and vital force. Out of all these conventionalized forms of art used for centuries, this new idea has sprung into existence in a single day. It comes from no school, and is merely a sporadic outgrowth in the genius of one man. He it is who has originated and developed it in all its realism and vitality. Already have imitators of certain forms arisen, but there is only one who can produce them originally. Physicians and others who have made measurements declare that the anatomy of these figures is perfection itself, while we ourselves can see that the individuality of each is distinct and in perfect harmony. The genius of this Japanese wood-carver places him in accord with Western ideas of art in thus producing forms allied to Nature's self; but even in our civilization there can be found no parallels for these small, exquisitely finished figures.

Take for instance his carving of a well-known basket-vendor of Tokyo, which is a faithful counterpart in every particular, even to the facial expression; or the jinrikisha-man a familiar character in this part of the world. Observe the veins in the neck and the cords of the leg; it is so remarkably faithful to life that it seems as if it were a photograph in wood. Or of the boatman in his *sampan*—a perfect model of both. It is not a mere representation of a Japanese boatman, a toy for children, but a finished piece of art worthy of study and admiration.

More wonderful still are the studies of the Aino, the aboriginals of Japan, whose descendants to-day are to be found in Yesso, the extreme parts of the island, living in a rude way, hunting and fishing. Although represented as a wild sort of creature, with hairy growth, yet the human strain is preserved in that they exhibit the feelings and strong passions of the ordinary mortal. In one the emotion of fear is exhibited in every muscle and pulse of the body—he is in the power of a serpent and unable to escape. In another, the Aino is the living picture of “Startled,” and springing from his hiding-place in a shell, to see what the matter may be. This idea is marked over the scene in every point of pose and expression. Another is an imaginative scene of an Aino, captured by a monster of the deep—a typical picture of “Horror,” for even the monster has a human look in the eyes of fish-blue—it is a human horrible. The cords and tendons of the Aino stand out, and the eyes have a horrified look, while the whole body is expressive of sudden terror. The artist must be endowed with a marvellous sympathy to impart to these bits of wood such human passion that our own sympathies are aroused, while the archæological value of such art as this to future generations cannot be estimated. As an evidence of the extreme life-likeness of his carvings, we quote from the *Japan Gazette*, of January 3rd, 1890, the following amusing paragraph: “The magnificently carved wrestlers which “were announced by advertisement as on display at “Messrs. Deakin Bros. & Co., attracted so many Japanese that the curtain had to be lowered. During the “display a rather amusing incident occurred. A policeman informed Mr. Deakin that if he intended to continue the wrestling on his premises it was necessary “that he should engage a *posse* of policemen to restrain

“the crowd. He was invited into the store, and was wreathed in smiles until he saw that the wrestlers were carvings in wood. Then he subsided, his features straightened, he muttered *naruhodo*, and left.”

The only fear is that they are not imperishable, and that some accident might reduce them to ashes. At present they have no great value, it will only be in the lapse of time, when the hand and brain that turns them is forever stilled, that their real value will be computed. Beside these are masks of grotesquerie, the King of Devil, and others. That wild, fascinating face, with dimples, red hair and inviting smile, as if it were an ideal of self-satisfaction, is the Japanese Bacchus, Shojō, who lives in the sea, but comes up at stated times for wine, of which he is very fond, and which is always left out for him as a propitiation. As the Japanese get very rosy-cheeked themselves under the influence of wine, they have pictured Shojō as red-faced and red-haired also. Even the tiny masks are handled in the same masterly manner, portraying facial expression of the different passions in the most marvellous manner. As an art, this Japanese wood-carving stands a thousand years removed from the drawing and painting by the same race. The only wonder is it should be so sudden—the only fear that it may prove to be sporadic.



(TODO CREST.)

THE CABINET MAKERS.

Lo and behold! the workmen do all their work sitting upon the floor. Of course! this is the way they do everything. They don't own such a thing in common every-day life as a chair, and prefer to sit down rather than to stand up, as we do. In stockings of a peculiar mitten shape, or barefooted, they sit down in the midst of their shavings and deftly work out their designs. But it seems strange to see that one pull *back* the plane, instead of pushing it *forward*, as we do. But what sharp tools he has! and what marvellous ribbons of wood he passes around as samples of the Japanese art of planing! These shavings, are as fine as lace-work.

Now he must use his saw. Is he going to put his work on a saw-horse, or carpenter's bench? Nay, this is not Oriental. He lays the board upon the floor, a little raised on his block, holds it firm in place with his left foot, and bending his head down to the floor, and making a singular loop of his entire body, he saws away free and unconstrained in this peculiar attitude. The block might serve for a pedestal, the easy pose and brown figure for a model in bronze.

These men can do any kind of work in wood, from the commonest to the most delicate cabinet-making or carving, screens, panels, fancy cabinets of all kinds, to that commonly called "ebony," though it is in reality Chinese shitanwood. Upon the wall hang odd looking tools, not suggestive of their different purposes, but doubtless effective in Japanese hands.



(SATAKE CREST.)

THE BRONZE MODELLER.

Here is the process of bronze modelling from its very beginning. First, the modeller gets the desired shape made in clay—vase, or whatever it may be. Then he goes patiently to work, and makes his designs for decoration, all of wax, which he lays upon the sides of the model with infinite skill. They are all made fresh and new for each successive vase, so that it rarely happens any two are positively alike, while each of these fantastic creations of the Japanese artist's brain is evolved almost wholly from his inner consciousness. A dragon, with many quills growing from its head, horns, and protuberances, generally ending with a snaky termination of body, is the favourite decoration of the Japanese artist, and is used in every device, in border, ornament, or body of the vase.

When covered with these grotesqueries, then the whole thing is faced with clay, filling out each leaf, mingling in between the quills of the dragon—a most difficult process in point of deftness and patience until it is a huge mishapen lump, giving no evidence of the brain-work within. When hard enough to handle, this seeming lump of clay is held in the fire and carefully turned. This process melts the wax within, leaving a hollow instead, answering to every little device of leaf or dragon scale or quill. Into this hollow the molten bronze is poured, and when cooled, the outer clay is broken off and the inner dug out—and behold! the marvellous vase ready for the finisher's chisel.

To the finishers, are handed the bronzes in the rough, just from the casting, and they take them and carve them with various chisels and a tiny hammer, producing the feathers of a stork or the highest polish and finish of a vase, finally colouring with chemicals to produce the various tints desired.

Of bronzes there is an almost innumerable variety, both in price and nature. While a pair standing nearly 6 feet high may be figured at \$600, a pair not more than 20 inches high may represent a value of \$2,000. And this diversity, as we have pointed out, does not alone belong to the class of work we are now specifically referring to. It exists in regard to all classes of Japanese *objects d'art*. A vase in cloisonné or porcelain, six feet high, may be worth not more than a couple of hundred dollars ; while a somewhat miniature creation is valued at as many thousands, and it is scarcely necessary to explain how this dissimilarity come to pass. But to return to our subject. It may interest the reader to learn the difference between Shakudo and Shibuichi bronze. The charming metal used by the Japanese artificers in their finest work is Shakudo, which is of slightly varying colour. The best, however, is black with an almost imperceptible shade of blue. Shibuichi is lighter in colour and bears a slight resemblance to pewter ; but is very hard and of exceedingly fine texture. Mr. Huish, quoting from a paper by Professor Roberts-Austin, states : Analyses show that the former usually consists of about 95 per cent. of copper, $1\frac{1}{2}$ to 4 of gold, 1 to $1\frac{1}{2}$ of silver, and traces of lead, iron and arsenic. The latter contains from 50 to 67 per cent. of copper, from 30 to 50 of silver, with traces of gold and iron. The precious metals are here sacrificed in order to produce definite results ; in the case of Shakudo, the gold enabling the metal to receive a rich purple coat, or *patina* as it is called, when subjected to certain pickling solutions ; in that of Shibuichi, the alloy forcing the metal to assume a beautiful silver-grey tint under the ordinary atmospheric influences. It is one or other of these influences which gives the patina to all Japanese metals, and it is understood by that nation

in a way which no other has yet arrived at. A worn-out patina will often re-assert itself by the aid of much handling, the moisture of the skin being all that is required. This shows the acuteness of the producer in forming his alloy, so that the formation of the patina should be assisted by a treatment which an article in every day use is sure to obtain."

To name the many forms in which the metal-worker manifests his genius, would, on a lesser scale, be to count the grains of sand on the sea shore. We will, therefore, leave them unalluded to specifically, and content ourselves with saying that, no matter the subject, there is ever that ambitious charm of conception and perfection of finish so peculiar to Japanese art in any of its varied forms.



(THE TOSA CREST.)

THE SWORD.

We may include in metal work the sword, that weapon, which has done such a fell work at times. This weapon, either on account of its extreme excellence, the graceful ornamentation which often attaches to it, or the fact that it has now passed from general use with the advance of civilization, possesses extreme attractiveness to the visitor. We may, therefore, refer to it somewhat lengthily. For information on this subject, or indeed for plain teaching on any Japanese art topic, one

could not turn to a better mentor than Mr. Huish in his "Japan and its Art." He there tells us very much that is interesting regarding the sword. As he says, "It can readily be imagined that in a country where internal wars were being constantly carried on, where private quarrels grew into family feuds, where the vendetta was unhindered by law and applauded by society, where the slightest breach of etiquette could only be repaired by the death of one or other of the parties and where a stain of any sort upon one's character necessitated suicide with one's own weapon, attention was very early directed towards obtaining perfection in the only article of defence or offence, which a Japanese carried. Nor would this article long remain unornamented in a community where artistic instincts were universal, and jewellery and other adornments were not the mode. Consequently we find attention first of all directed towards the perfection of the blade, until for temper it had no rivals in the world, and many a one not only performed miraculous feats but became endued with such a thirst for blood that its owner was interdicted from wearing it. * * * *

The furniture of the sword and its ornamentation is a study of the most varied kind and one which, if taken up, is certain to interest in an ever increasing manner. At present there are but few who have occupied themselves with it, and therefore I propose to state shortly why I consider that it should enlist the sympathies of a larger class.

"Personal ornaments illustrate better than anything else the individuality of their wearer, and collectively the sense of the nation. Especially is this the case where the article in question is worn as a privilege, is regarded with deference, is handed down as an heirloom, and is the subject of the most carefully prescribed

etiquette. The manufacture of the sword and its adornment has for centuries been a profession adopted by artists of the highest attainments, who have spared nothing to render it an article of the highest artistic value. The ornament lavished upon it illustrates the religious and civil life, the history, the heroism, folklore, the manners and customs of the people, the physical aspect and natural history of the country. These have been executed in every variety of metal, so that a fresh and distinct interest attaches on this account, and they are so varied that it is almost impossible to find two alike, although swords are usually made in pairs. This variety often lets new light into a story or legend, from the artists' different interpretations of it. Careful selection and systematic arrangements increase both interest and value."

Alluding to the cheaper kind of swords, Mr. Huish pays this tribute to even their excellence: "We have lately seen at the Londesborough sale, swords and daggers, with no greater artistic wealth than these possess, fetching hundreds of pounds. The time may be long in coming when Japanese arms will realize such prices, but now that their use is abolished and their makers have ceased to be, they must have an increasing value. Lesser advantages are that they are not breakable, and that they improve invariably in appearance when they reach home and have been subjected to careful cleaning. To these reasons might be added that just now the curiosity hunter is in sad straits for want of a new hunting ground. With every civilized nation on the alert, and as eagerly disposed to join the chase as the old country, it is not surprising that the ground is getting cleared, that hunting the old game is far too expensive, and that he who would spring fresh must go far afield.

“The wearing of the sword, the precious possession of lord and vassal, ‘the soul of the Samurai,’ was, as I have stated, a privilege which only those of a certain rank were entitled to. In the time of the Ashikagas (16th century) the fashion of wearing two swords, one (*katana*) about three feet in length for offence and defence, and another (*wakizashi*) about two feet for the “happy despatch” (*seppuku* or *hara-kiri*) came into vogue. There were also the *chisakatana*, the same size as the *katana* but lighter, for court use; the *aikuchi*, or dirk without a guard, worn by doctors and inferior officials; the *jintachi*, or two-handed war-sword, and the *mamori* or stiletto. In full dress the colour of the scabbard was black with a tinge of green and red, and so it varied as occasion required, thus giving employment to the lacquerers. * * * * The taste of the wearer was displayed in the colours, size, and method of wearing his weapon. ‘Daimios often spent extravagant sums upon a single sword, and small fortunes upon a collection. A Samurai, however poor, would have a blade of sure temper and rich mountings, deeming it honourable to suffer for food that he might have a worthy emblem of his rank.’ *

The most important pieces of a sword are :

“The *tsuba* or guard, usually a flat piece of metal, circular or oval in form, which is perforated by a triangular aperture for the transmission of the blade. At either side are one or more openings for the lodgment of the tops of two accessory implements called the *kozuka* and *kogai*. These openings are often found closed up with metal, indicating that the guard has been adapted to a different sword.

“The *kodzuka* is the handle of a short dagger (*kokatana*) which has its place on one side of the

* Griffis's “Mikado's Empire,” p. 225.

scabbard. * * * * The *kogai* is a skewer inserted on the other side, and which, it is said, was left by its possessor in the body of an adversary killed in battle, as a card of ownership. *Kogai* are not found in all swords, and are not met with in any numbers; they are usually made of a malleable material, and ornamented similarly to the *kodzuka*.

“The *menuki* are small ornaments placed on either side of the hilt to give a better grasp to it. They are also used to ornament the scabbard, especially on the *wakizashi* or short swords, and on daggers. Imitations of *menuki* find a place in almost every curio shop, but they can usually be detected by their being either cast or rolled out of common metal. I recently saw no less than 1,200 for sale in one shop, and not worth the freight they had cost. No one should buy these or similar things without first handling and examining with a glass some really good ones.

“The *kashira* is the pommel or cap of metal which fits on to the head of the handle, being secured to its place by a cord passed through two lateral eyes. The *fuchi* is an oval ring of metal which encircles the base of the handle, and through its centre the blade passes. The *fuchi* and *kashira* were always made by the same artist, who usually signed his name in the underside of the latter. * * * *

“There are also the *kurikata*, or cleat through which the ‘sagewo’ (or cord for holding back the sleeves whilst fighting) passes, and the *kojiri* or metal end to the scabbard.

“It is difficult to say upon which of these pieces the best and most elaborate workmanship was lavished. As a rule makers of one part will be found to have executed others, though we encounter many names only upon one class.

“Foreigners have much difficulty in obtaining information about Japanese metal-workers of the past. There is a work, *So-ken Ki-sho*, published in 1781, which gives biographies of the most noted, but no one has at present been found sufficiently enterprising to translate it. M. Gonse’s notes on *tsuba*-makers are principally of service to collectors from the beautiful reproductions attached thereto, for he has not attempted to make any classification into schools or to distinguish between styles. Mr. Hart’s lectures are too concise to do much in this way, but they are the best attempt hitherto. Fortunately in metal, as in lac, a good eye and a certain amount of experience will enable a distinction to be made as to what should be acquired and what shunned; the majority of collectors appear at present to be content with this, for I know of but one who has as yet attempted any classification into masters and schools.

“Discarding the makers whose works are not likely to be met with, the following are the most noteworthy.

“The Miochin family, which date back in continuous record to the twelfth century, and have received constantly recurring marks of royal favour in testimony of the excellence of their work. They were great armourers, but they also showed their skill in other ways, as, for instance, in the eagle in the South Kensington Museum and the sixteenth-century dragon. Sword-guards by the Miochins of the sixteenth and seventeenth centuries may occasionally be picked up.

“In the fifteenth century appeared the Goto family, whose work is held in higher estimation in Japan than any other: it has too much sameness and academic style to please those who enjoy the work of artists who deal with the subject with freer and larger aims. The founder of the house, Goto Yujo, lived in the fifteenth

century (1440-1522), and was named after the renowned Shogun Yoshimasa Yujo. This dignity was conferred on his descendants, not only by the Ashikagas, but after their fall, by Hideyoshi, Iyeyasu, and the Tokugawas. As Mr. Hayashi remarks in his 'Catalogue of Artists,' the house being attached to the Shogunate always produced works of the highest quality, and retained its traditional renown, its successors being selected, not in direct descent, but from those who showed the greatest talent. In 1603 the house of Yujo moved with the Shogun Iyeyasu to Yedo, where their descendants worked until the present century. A branch of the house remained at Kyoto, and were consequently known as the Kio-Gotos. The Gotos were especially noted for their work in *nanakoji*† on *shakudo*. During the lifetime of the earlier members of the family, *tsubas* were usually of hard-tempered iron, and consequently not suitable to their delicate work; hence we find the best examples of the elder Gotos upon *kodzukas* and *fuchi-kashiras*. It requires some experience to distinguish between fine and inferior work in *nanakoji*; a magnifying glass will, however, show the perfect regularity and shape of the small dots in good work.

“With the sixteenth century piercing and chasing, and in rare instances inlaying and damascening, came into vogue with *tsuba*-makers. Three names of note in connection with this change are Kaneiye, Nobuiye, and Metada (or Ume-Tada). The first has been called ‘the creator of artistic sword-guards.’ The work still continued as a rule to be marked by an absence of extraneous ornament in the shape of gold, silver, or alloys; but it was ornamented, in the case of Kaneiye,

† Nanakoji, so called from its resemblance to fish roe, is produced by punching the surface into a texture of small dots.

by landscapes in low relief, in that of Nobuiye by subjects from still life executed in a bolder manner and higher relief, and in that of Ume-Tada by a free use of the graver. Ume-Tada has been called 'the master of masters;' his name has been used by a number of men of later date and inferior calibre.

"With the close of the sixteenth century the period of constant wars was drawing to an end, and the country was on the eve of an era of peace which lasted for two hundred and fifty years; the sword-guard, which in former times was of no service unless it was of a toughness sufficient to withstand the whole force of a blow dealt with a two-handed sword, might now be adapted for court use and for the adornment of the person. Consequently we see from this time onwards an increasing change in the character of the metal used and the ornamentation employed, and we find in the ateliers at Osaka damascenings of gold and silver in the iron, the son of Kaneiye encrusting his work with copper, and translucent enamels being introduced by Hirata Donin. We have also Kinai at work, whose elegant pierced *tsubas* elicit the admiration of everybody.

"The close of the seventeenth century was notable for the rise of the three schools of Nara, Yokoya, and Omori. The Nara school took its name from Nara Toshiteru, and attracted to itself upon its foundation a number of artists whose works have ever since been sought for by connoisseurs—namely, Nara Toshinaga (1667-1736), Yasuchika (1670-1744), Hamano Shozui (1697-1769), and Joi (17 -1761). Of these Shozui appears to have had the largest number of followers, amongst them being Chokusai, Kunichika, Kuarakusai, Juzui, Hozui, Kuzui, and Kozui. The school was a revolutionary one, and started as a protest against the academic style of the Gotos.

“The school of Yokoya—named after its founder Somin (1670-1733), who received the title of Yokoya—arose about the same time. The founder appears to have been Soyo, and Somin’s successors were Terumasa (1705-1772), who joined hands with the Omori school, as did his nephew Teruhide (1730-1798), and Konkwan (1743-1800). * * *

“The Omori School was founded by Shigemitsu (1693-1725) and produced Soten, noted for his pierced and gilt *tsubas* with subjects of battle scenes; Teruhide, known for his modelling of waves and imitation of aventurine, may be classed in this school, as in that of Yokoya. Besides this may be mentioned the schools of Ishiguro (Yedo), with Masatsune (1760-1828), Masayoshi and Shinzui (1789-1842), and Hosono, of the early part of this century, whose flat, incised work is remarkable for the introduction of coloured surfaces.

“The English and French authorities differ widely in their catalogues of the most noted artists in metal; it may be well, therefore, to conclude this summary with the notice of the more modern men as given by M. Gonse.

“What a galaxy of masters illuminated the close of the eighteenth century! What a multitude of names and works would have to be cited in any attempt to write a monograph upon sword furniture! The humblest artisan, in this universal outburst of Art, is superior, in his mastery of the metals, to any one we could name in Europe. How many artists worthy of a place in the rank are only known to us by a single piece, but which is quite sufficient to evidence their power! From 1780 to 1840 the art was at fever heat, the creative faculty produced marvels. Tomoyoshi, Nagatsune, Masanori, Fusamasa, Takanori, Munemitsu, Joi, Munenori, Kadzunori, Seidzui, Toshihiro, Tomo-

nobu, Terutsugu, Masayoshi, Teikan, Kadzutomoto, Masatsune, Masafusa, Ossatsune, Yoshihide, Yoshitsugu, Morichika, Yasuyuki, Yasuchika, Haruakira, Ekijio, Nobuyoshi, Toshimasa, Hirosada, Katsuki, Natsuo, all practised the art with consummate ability during this period."

"The decoration of the sword furniture showed symptoms of decline early in the present century. Working in hard wrought iron was first of all shirked, and similar effects were endeavoured to be produced by castings; then the decoration ran riot and transgressed all limits, so that many of the pieces made between 1840-1870 could never have been used for the purposes for which they were professedly intended; such products are remarkable in a way, as showing the lengths to which elaboration may be carried, but they can never stand for a day beside the dignified workmanship of an earlier date.

"Imitations of sword guards are now being imported into the market. These are cast from old specimens, and can usually be detected by holding them at the point of one's finger and hitting them sharply with another piece of metal, when they will emit a dull sound only, whereas a fine old guard will ring like the best bell-metal. It is well to test all guards in this way, but it must be recollected that guards with much piercing will not ring, and that many of those made since the beginning of this century are of such malleable iron as not to stand the test.

"It is a question which has not yet been solved whether some of the old guards may not be castings, even some of those which are chased. The difference between wrought and cast iron is that the latter contains from $1\frac{1}{2}$ to 4 per cent., of carbon, the former hardly any; but it is possible to anneal or toughen cast iron

by a process known as cementation, that is, by a surface removal of carbon. Many of the guards are covered with oxide of iron, to which they owe much of their beauty.

“As I have already mentioned, one of the principal factors which should give to Japanese metal-work an interest is the variety of material which is introduced, and the remarkable way in which it is treated. Amongst the swords and pikes in the Londesborough sale, do we find anything to approach it? Certainly not. Iron, steel, gold, silver are used with much unapproachable enrichment; but nowhere that patina to which we are treated in Japanese work. And yet this unique factor is altogether overlooked by the many who only glance at the subject, although it is not a difficult matter to understand or appreciate.”



(BIZEN, OR IKEDA, CREST.)

LACQUER.

The gold or other lacquer work, is, perhaps, the least known or understood of any of the art productions of Japan. Mr. Romyn Hitchcock, an American chemist, described recently to the Washington Chemical Society the manner in which Japanese lacquer and the beautiful Wakasa ware are prepared. Lacquer is obtained from a tree, *Rhus Vernicifera*, which grows throughout the main island of Japan, but is best around Kyoto. The juice, from which lacquer is obtained,

exudes from horizontal cuts in the bark, and is collected from May to October. It exudes slowly, and is collected with a pointed instrument like a spoon, and transferred to a wooden receptacle. A dozen trees are cut in several places in rapid succession, and the juice collected from time to time. During the season each tree is visited about 20 times. As the sap first exudes it is a grayish white, thick or viscous fluid, which quickly turns to yellow, and afterwards to black, when it is in contact with the air. It is strained through a cotton cloth to free it from wood and dirt, being first thoroughly stirred to make it of uniform consistency. A portion of the raw lacquer, usually about 16lb., is then poured into a large circular vessel and vigorously stirred with a long-handled implement for five or six hours, while the heat of a small charcoal furnace is ingeniously thrown on the surface to evaporate the water. During the stirring, certain ingredients may be added. Thus, iron is added to produce the fine black lacquer; in Tokyo a soluble salt of iron is used for this purpose; in Osaka a fine iron dust. The lacquer is then poured into a vessel to settle, and is afterwards drawn off from the sediment. The wood used for lacquer work is a light coniferous one known as *hinoki*, and is prepared to receive the lacquer in various ways. For inferior work it is covered with paper, but in the finer qualities of lacquer work paper is not used. The wood is first carefully smoothed, all joints and imperfections are filled, as with putty, with the raw tough lacquer mixed with rice paste, which soon hardens so that it can scarcely be cut with a knife. The whole is then covered with a mixture of inferior lacquer and coarse yellow powder, and is left a few days in the open air to dry, after which it is placed in a moist-air closet to harden. A hard, gritty surface is thus obtained for

the next coat. The next process is to cover the whole with two evenly spread coats of lacquer mixed with a fine ochre powder, so as to get an even, smooth-grained surface for the subsequent work. This is rubbed down with a stone, and the parts which are not to receive any decoration are ready for the finishing applications of the lacquer. The other parts are covered with two coats of black lacquer; the first, applied with a broad brush, dries with a brilliant, reflecting surface; when this is quite hard the second coat is applied, and on this the designs are impressed. In Wakasa ware there is no painting or drawing; the white decoration is applied by dropping egg-shell powder skilfully by hand here and there, and other designs are produced by pressing various forms of leaves on the soft surface. To get the surface completely smooth again is the next operation, and then a transparent lacquer, coloured yellow, is applied with the object of affording a yellow ground for the gold which is to follow. This is covered by successive coats of the same lacquer until a smooth surface is again obtained, beneath which are the gold and decorations. Mr. Hitchcock thinks the peculiar qualities of lacquer have not received the attention in the West which they deserve. Lacquer gives a much harder surface to wood than the best varnish, and is not brittle. It takes a polish not to be excelled, and which lasts for centuries; it is proof against boiling water, alcohol, and seems to be insoluble by any agent known to us. The objection is the danger of lacquer-poisoning from the fresh material, which is much dreaded by the Japanese (*Times* report).

Mr. Huish has a very interesting chapter on lacquer. In opening, he says:—"Foremost amongst the wares for which Japan has become celebrated is lacquer, in the manufacture of which it stands pre-eminent amongst

nations. Lacquer has been an industry in Japan beyond the ken of man. Before the Christian era there is said to have been an officer whose business it was to superintend its production at the Mikado's court, and specimens more than a thousand years old are in existence. With such antiquities it is useless here to deal; examples of that age are likely to be seen or acquired by very few, if any, of my readers, and, therefore, as regards both this and other manufactures, I shall not touch upon any variety of which a specimen may not become accessible to an ordinary collector."

Deriving his information from a Parliamentary Blue-book by Consul Quin, he proceeds:—"Wood is the most usual basis for lacquer articles, and the following notes upon the manufacture will, unless mention is made to the contrary, refer to those made in that manner.

"The various pieces of wood of which the article is to be composed are first cut and fitted; these are often no thicker than a sheet of paper. Any interstices there may be in the grain of the wood or the joints are filled with a composition of powdered stone or chopped hemp, which answers to our system of priming. It is needless to add that the wood (which is usually *hinoki* for boxes, and *honoki* (magnolia) for sword-sheaths) has been seasoned and dried. How carefully this is done is evident from the fact that a piece is hardly ever encountered which shows the slightest sign of shrinkage or warping. Boxes made two hundred years ago are as perfect in this respect as the day when they issued from the hands of their producer. I have one in my possession which is only a fair sample of such work, where a tray in the interior will rest upon the compressed air, which cannot escape, so perfectly does it fit. I am sorry to say that this fact oftentimes elicits more

of my friends' interest than the artistic workmanship which is everywhere evident in the piece. This marvellous construction, for it is nothing else, is even more strikingly exhibited in the joining of the various compartments of the intro, or medicine cases, where each section fits as if it had been made by the most accurately devised machine.

“But to proceed with the details of the construction. After the fittings of the joints have set firmly, all excrescences are ground down with a whetstone, and the whole is covered with a thick coat composed of a mixture of powdered and burnt clay and varnish, which, when dry, is again smoothed down with the stone. This done, the article is in most cases covered with silk, hempen cloth, or paper, which is pasted on with the utmost care, so that neither crease nor joint is seen. The texture of the cloth can, however, be distinguished on many even of the finest pieces if held so as to allow the light to reflect from them. The piece then receives from one to five thin coats of the clay and varnish mixture, each being allowed ample time to dry. According to Audsley, the article resembles at this stage a finely-rubbed brick. This surface having been made perfectly smooth by use of the whetstone, the process of lacquering commences, a spatula at first and afterwards a thin flat brush of human hair being used to lay it on. Space will not allow of our going through the numerous differences which attend the laying on, polishing, and drying of the different layers of lac,*

* Lac is not a varnish in the usual acceptation of the word. It is a gum resin formed of the sap of the *Rhus vernicifera* dissolved in a solvent that evaporates. This gum contains about eighty-five per cent. of urushic acid, two and a quarter per cent. of a nitrogenous substance, rather more than three per cent. of a gum soluble in water, like gum arabic, and the rest water. The quantity of urushi (lacquer) produced throughout the empire in 1886 was twenty-five and a half million *me* (100 *me* = 1 lb troy).

until the final coat is reached, which requires to be laid with cotton wool with the utmost delicacy, and is at once almost rubbed off with soft paper; this when dry, is polished with deer's horn ashes reduced to an impalpable powder and applied with the finger.* Enough has been said to show the unexampled care which has attended the process and the time which all this takes—the drying alone of a good piece requiring, up to this point, under the most favourable circumstances, 530 hours.

“But we have as yet only got as far as the preparation of the black ground. There has still to be added to this the wonderful superstructure of decoration, whether it be in gold, silver, mother-of-pearl, or a variety of metals. The metallic dusts or powders used for this are infinite in variety of composition, size, weight, and shape, are all distinguished by the Japanese workmen by different names, and each is brought into his service in accordance with rules long ago formed for him by the experience of his ancestors. Space will not allow of our going through the various processes. We can only here call attention to those most frequently encountered, and show how they may be distinguished.

“The most oft recurring form of lac is that popularly known as *avanturine*, from its resemblance to the *avanturine* Venetian glass. Its correct name is *nashiji*, from its supposed likeness to the spotted rind of a pear (*nashi*). It consists in either mosaicing the ground with particles of gold dust, or in covering it with gold dust until it assumes, as the French say, a crushed barley-sugar appearance. In this latter process great skill is required to attain a perfectly even distribution of the flakes; this is covered with coatings of a fine transparent lacquer, often amounting to a dozen in number.

* It is a common error to suppose that the polish on lac is effected by the varnish; it is entirely by the polishing just described.

Nashiji dates back to the fifteenth century. It is usually made either of pure gold, gold and silver, or pure silver, but there are seven degrees of fineness in each.

“Giobu-nashiji, said to be named after the inventor, who lived in the early part of the eighteenth century, is where small squares of gold leaf, called kirikane (or cut metal), are used instead of the powdered gold; but this practice is found in pieces of much earlier date. In designs where this style of work is finely carried out, it is wonderful to observe the regularity with which each of these squares has been laid, especially when, as is often the case, they diminish in size: a similar method of work is sometimes to be found in minute pieces of mother-of-pearl. Each piece is applied separately by means of a thin-pointed bamboo stick.

“Togi-dashi is where the patterns in metal are the result of grinding and polishing. The design is transferred on to the lacquer by means of a paper upon which the lines are traced with a slow-drying lacquer; this, when in position, is emphasized by a little fine white powder and then gilt, those portions which have to come brightest being raised above those of a lower tone by means of a coating of a thick stiff lacquer and gold dust. When this has dried, all portions of the ground or pattern which yet require gilding are covered with lacquer and then dusted with gold; this, when dry, is again twice lacquered and thoroughly dried. The surface is then rubbed down until the gold design begins to show itself. Great care has to be taken so as to prevent injury to the gold during the numerous coatings and grindings which are necessary until the pattern shows up satisfactorily through the glaze; when this is accomplished it has still to be polished.

“The name *hira-makiye* is applied to all lacs where the design is not raised above the surface more than the thickness of the lines; as Mr. Audsley says, it includes almost all the pieces notable for beauty, delicacy, and tenderness of feeling and treatment. The details and transparent effects are usually produced by graduated or softened-off dustings of metal. The skill consists in so distributing the powders as to secure the exact proportions and shadings. In fine examples a mistake as to this never occurs.

“This process is often combined with *taka-makiye*, where the surface is raised or indented. In this, as in the process last described, the ground-work has to be entirely finished before the ornamentation is commenced. Low relief is accomplished by dusting the design in wet lacquer with fine *camellia* charcoal powder; for high relief *sabi* (a mixture of burnt clay and lac varnish) is used; both, when dry, undergo various polishings and grindings.

“The other sorts of lacquer requiring notice are *tsui-shiu* (red), and *tsui-koku* (black), where the design is carved out of a thick coating of lac. But the most remarkable work in this way is *Guri lac*, where the body of the work is formed of superimposed layers of various coloured lacs, through which designs, usually consisting of flowing curves, are cut in V-shaped incisions, sometimes to the depth of a quarter of an inch, thus exposing the layers. Fine pieces of this lac are not common, but it is frequently imitated by colouring the sides of the incision so as to resemble the layers. A good magnifying glass will usually enable the imposture to be detected; and here I may remark upon the value of this instrument in the examination of Japanese manufactures, especially metal work. Desirable specimens should always stand its test. Yosei

(1650-1670) introduced from China a practice of carving Guri lac into landscapes and figures, utilising the different coloured layers to represent different planes or portions of the picture. Heijiuro (1596-1615) was the great master of Guri lac.

“ Chinkin-bori dates no farther back than the early part of the last century, when it was copied from the Chinese. It is similar to dry-point etching, and consists in incising the pattern in fine lines into the body of the lac with a graver or rat's tooth, and filling up the incisions with powdered gold.

“ Mention must also be made of works in monochrome, where the pattern is in the same colour as the ground; black is a favourite colour and the result is thoroughly artistic. Koma Kuansai excelled in this.

“ Until the opening up of Japan thirty years ago, the only specimens of Japanese lacquer known in Europe were the few pieces which surreptitiously found their way out of the country in the occasional cargoes of wares which the Dutch settlers were allowed to export. How few these were is shown by a search of the records of the eighteenth century, which contain entries to this effect: that eleven ships sailed in one year, carrying 16,580 pieces of porcelain and 12 pieces of lac. The reason for this was that the exportation of lac was forbidden. There were collectors of it even in those times, amongst whom Madame de Pompadour (who expended 110,000 livres upon it) and Marie Antoinette were the most notable.—The latter's collection, of about one hundred pieces, is in the Louvre, and M. Gonse states that there is hardly a single one which is not of an inferior quality. The most notable pieces of this sort in this country (England) were those included in the Hamilton collection. For these enormous prices were paid at its dispersal.

“Fashion, and knowledge still more so, have as in other matters moved forward rapidly of late. It is not much more than a decade ago that collectors would talk about, and have nothing but, “Daimio” lac. Many of them had but a vague idea of what was included in that term, but they made it all embracing, as they well could do, for there are probably few sorts of lac which were not at one time or another made for the great princes. I have asked many collectors and Japanese experts what they meant by the term, and all have differed. But the majority would seem to confine it to the large pieces of furniture which were made for the Daimio’s actual use, and to the smaller pieces ornamented with diaper or flowing patterns of a formal nature, and, usually, the crest of the owner.

“The oldest lac with any approach to artistic quality which comes into the foreign market is that which is known as Kamakura-bori, so called from the city of that name, the capital of the Shoguns. Old specimens of this are not frequent, but not long ago I encountered half-a-dozen examples in a collection sent over from Japan for sale. They consisted for the most part of figures rather rudely carved, covered with a thick coating of red lac over black, which shows through with age.

“Probably the earliest artist in lac whose work is likely to be found by the ordinary collector is Honnami Koyetsu. The date of his birth and death are known (1556-1637), and he was fortunate in passing the last twenty years of his life under the Tokugawa dynasty, who brought in an era of taste and refinement. He was the originator of the schools of Soyetsu and Korin.

“The other lacquerer of distinction, founder of a school, who lived in the seventeenth century, and with whose works we are fairly familiar, was Koma Kiuhaku.

Authentic specimens of his work are somewhat rare, although he lived to an old age. An inro in the writer's possession, representing three sparrows flying, is chiefly distinguishable for the boldness of the design, the somewhat early character of the nashiji ground, which is of the barley-sugar character, and for the fine colour of the black and red lac in the interior lining. He also produced a coloured lac finely dusted with gold and rubbed down: it then in some lights showed a metallic lustre, in others a brilliant coloured surface. Red under gold was the most usual form of this. He was noted, too, for his Koma red, which has a steely look in certain lights due to an infusion of gold. The Komas excelled in hira-makiye. Koma had a son, Yasutaka, who continued his father's work, and the school has continued up to the present day, the most noted disciple being Koma Kuansai, who attained a high distinction in the last century. Others of note were Bunsai, Kioriu, Yasumasa and Yasunari.

"Both of the foregoing artists were in a sense the masters of Korin (A.D. 1661-1716), whose name has a magical sound in the ears of most collectors. Once seen, his style is the most easily recognisable of any; but it is somewhat difficult to distinguish between the work of master and pupils, for it is a style which is not difficult to copy. Korin was an artist with the pencil as well as in lacquer, and his designs with the former are notable for their originality and freedom from convention. The same applies to his works in lacquer, in which the designs are almost repellent by their vigour, and upon such a material as fine lac they appear out of place.

"It will be noticed that, in this example, mother-of-pearl and pewter have been used. Korin was the first to introduce the latter to any important extent;

he also used tin and lead. One distinguishing mark between the master and his imitators is in the gold; in both, the gold will probably be laid on very thickly, but in the master's case, it will be found to be of a rich red hue, pleasant and soft in tone, as opposed to a sickly yellow; it has been remarked by Mr. Kataoka, who has studied the subject very carefully, that Korin's gold is often full of minute specks which resemble gilded grains of sand.

"By the majority of collectors, there is nothing so much sought after as a fine example of Korin's work; for myself I consider it altogether overrated; I admit its surprising vigour, but it has, to me, always an archaic appearance, and carries upon its face the fact that it is imperfect work, work so primitive that one is always surprised when one remembers that it only dates back to the beginning of the last century.

"Mr. Anderson, however, is of opinion that 'to those who have learned to understand his aim, there appears a strength of character rarely apparent in the resplendent work of later years. As a decorative artist, he will always be a genius for the few, a charlatan for the many.' (*Pictorial Art*, p. 137.) Mr. Gilbertson adds that 'his productions are the eccentricities of a genius; in the hands of his imitators their absurdities stare one in the face too palpably; his style consequently soon disappeared, and deservedly so, for that reason.'"

"Another school which owes its origin to the teachings of Koyetsu, was that of Soyetsu. According to Mr. Ernest Hart, the pupil chiefly gave himself to the same delicate style of work affected by his master, although some of his productions are characterized by largeness and boldness of design. Tsuchida Soyetsu attained to a great age, and in the Gilbertson collection

are two inros, upon which are statements that they were executed in the eighty-second and eighty-fourth years of his age; the lac has turned brown and semi-transparent. In a signed inro in the author's collection, the Mikado's treasure-cart is represented on one face; the lacquer is in relief, the frame-work of the cart is ornamented with Giobu-nashiji, the body is inlaid mother-of-pearl, and the wheels are lead. I may here remark that part, if not all, of the earlier inlayings in mother-of-pearl were composed of pieces with parallel sides, the lines of junction being vertical. Korin often shaped his mother-of-pearl, making it usually one piece, and later on the inlayers did not hesitate at inlaying one piece of mother-of-pearl over a curve, or even a sharp angle.

"An artist, whose work was thoroughly original, but which often shows traces of imperfection, was Ogawa Ritsuo or Ritsuwo (1662-1746).

"We now proceed to the consideration of work which leaves nothing to be desired, which in itself is the *ne plus ultra* of mechanical perfection, and against which the most hypercritical can only say that occasionally it exhibits traces of a luxurious effeminacy when compared with the masculine productions of those whom we have hitherto discussed. For myself, fine examples of Yamamoto Shunsho have a fascination which attaches to the work of no other master. Messrs. Gilbertson, Alexander, Trower, and especially the French collectors, have specimens, whose aristocratic mien makes their fellows look vulgar and insignificant. No one who has handled a piece can fail to recognise its perfection. The very silkiness of its surface is a marvel. It can well be imagined that work such as this is incapable of reproduction. It will not photograph satisfactorily, its glossy surface giving off an infinity of

reflections. Mechanical reproduction, wood engraving, and chromo-lithography all fail.

“I have been unable to ascertain definitely the date when Yamamoto Shunsho lived. It was probably at the close of the seventeenth and beginning of the eighteenth century. Mr. Anderson mentions that he was alive in 1780, but this was almost certainly a descendant. In the example of the work of his pupil the ground is black, the cranes are in silver lac, and the reeds are drawn in gold with a powdering of gold—the whole is in hira-makiye or flat-work.

“The best-known name in the annals of the lac producers is that of Kajikawa, and the work of this family is the favourite with the majority of collectors. Mr. Gilbertson has no less than a hundred signed inros by them, and he considers that by their admirable taste and skill they and the Komas have raised that article to the highest level of a work of Art. He is of opinion, too, that the first Kajikawa has never been excelled in the beauty and perfection of his black lac, or the richness of his nashiji, and that his gold often rivals Korin's. To this is added sumptuous workmanship, a lavish display of gold, and a very full design. The groundwork is usually nashiji thickly and profusely laid on, the design a landscape, abounding in mountains, lakes, houses, and with a foreground of cunningly modelled rocks and foliage. The small portion which remains for the sky will probably be tenanted with cranes.

“There are many other lacquerers who have a place in the first rank, but of whom little can be said here; Koami Nagataka who founded a school, Masazane, the three brothers Nagatoshi, Yoshihide, and Nagata Yuji, Hakusai, Nagahide, Mitsutoshi, and Hara Yoyusai, all at the latter part of the eighteenth century, and

in this, Harui, Hoitsu, Inagawa, Jokasai, Kakosai, Kanetomo, Kikugawa, Kiyokawa, Kuanshiosai, Kuan-yosai, Seisei Korin, Ogawa Shomin, Senreisai, Shiomi Masanori, Shokasai, Shomosai, a celebrated maker of encrusted work, who encrusted inros in conjunction with Shibayama, Tosen, Toshirio, Toyosai, Tsune-ou, Zeshin. Mr. Gilbertson has examples in his collection by two hundred and fifty masters, nearly all of whose work is of the first order. * * * *

“It may be well here to note some of the principal articles which were made of lacquer, and to what purpose they were put.

“First of all we have the large suites of furniture, now seldom met with in a complete state in Europe, because whenever they come into the market they are split up by the dealers for the purposes of sale. H.R.H. the Duke of Edinburgh has a complete set, made of Daimio lac, which bears the badge of Prince Toda. In this are included two tansu or stands on which the set of boxes, nine in number, and a tray, are placed. The boxes include large ones for holding papers, MSS., and books, kobako, or incense game box, and a kodansu, a small cabinet for holding the incense. There is also a shodai, or sloping reading desk, and the suzuri-bako, or writing-case.

“Suzuribakos come over in some quantity to Europe and are not, of course, always made for sets. The Fine Art Society's Exhibition included a considerable number, and in nothing was there a finer display of lac. Then we have the picnic boxes (bentobakos), mirror cases, fans, and lastly the oblong-shaped boxes, which, serving here the purpose of glove boxes, are supposed to have been utilised in like manner in their native land. This is not so. Their use was as letter-carriers. A letter when written was folded and placed inside, and the box

tied round by the writer with a silken cord; much stress was laid upon this cord (which is sometimes of very large dimensions and resplendent in colour), and upon the correct method of tying it. The box was then taken to its destination by a servant, who sometimes even had his mouth covered with a cloth so that he might not breathe upon it, where the letter was removed by the recipient. The answer was returned either in the same box or one belonging to its writer. Upon certain occasions the boxes were retained as a gift by the recipient, and this was usually the case when the despatch came from a nobleman.

“Lastly we have the inro, which has been so frequently mentioned in this chapter. An inro formed a necessary part of a gentleman’s attire. It was attached by a silk cord to a netsuke and strung through the sash. It was used for medicine powders, for perfumes, and as a seal box.*

“An inro has usually four trays, one fitting on to the other with mathematical precision. Inros are made of metal, wood, ivory, crystal, bark, shell mosaic, and tortoiseshell, besides wood lacquered. Artistic inros were first introduced by Matahei in the seventeenth century.

“In conclusion, the following remarks upon collecting lacquer may not be out of place. Mr. Gilbertson, on this subject, writes as follows:—“If a collector is compelled, from want of space or for any similar reason,

* Seals for a long period took, and do still, the place of a signature. They were small blocks of wood or metal on which was engraved the owner’s seal. This was moistened on a vermilion pad and stamped in one or more places on the document. Pictures, and even books, received the seal of the author. Naturally this opened the door to forgery, and so educated persons have for long placed their signature as well as their seal. The abandonment of seals is now being urged in high quarters, so that another reason for the disuse of inros is imminent.

to confine himself to one particular class of Japanese Art work, he cannot do better than select inros as the most desirable object. If the netsukes which were attached to them are added, there is no question as to what his choice should be. As illustrations of the history, mythology, and folk-lore of the country they are hardly so rich as the metal-work, or the netsukes; but, as regards that extremely interesting branch of Japanese Art—the branch in which they stand and have always stood absolutely supreme—the art of working in lacquer, the inro is of surpassing value. It is there one must look for the most perfect examples of lacquer work of every description. Not that larger works, such as writing boxes, perfume boxes, etc., do not afford equally fine examples of the work of the great artists—finer, indeed, from a pictorial point of view, because of the larger spaces available; but in the inro one often finds a treatment of the subject and of the material that would be inapplicable to the larger surface. The very limit of space and the form in the inro often bring out the artistic knowledge of the designer—very frequently the executant at the same time—in a most remarkable manner. Wonderful harmony both of colour and composition are often combined with a minuteness of detail that makes one wonder what sort of eyes and hands the lacquerers possessed.”

“Every collector has his own views on the subject, and my readers will no doubt have gathered that there is a branch of Japanese Art which attracts me as much as lacquer. But there is no doubt there are few artistic pursuits which can be cultivated at so small a cost, and with so much probability of its being a good investment—a goal which the collector so frequently aspires to—as that which Mr. Gilbertson has advocated. For a few pounds specimens can be obtained,

the merit of which none can dispute, and which will be examples to all who see them of the pitch of perfection to which workmanship can attain; the test of familiarity and careful study will only enhance, as it shows, their value—and this is the crucial test to apply to all arts, and it is one which few of the huge, expensive modern productions of Japan will submit to.

“The newness of a piece of lacquer may often be certified by smelling the interior, if it be a box or suchlike. It takes many years for an object made of lac to lose its oleaginous smell if it is not exposed to the air. I have never been able to diagnose exactly the scent of old work, but there is a dryness about it which is unmistakable. Another way of distinguishing old from new wares is by examining the edges of the designs. It is always suspicious to find no appearance of wear on the bottom of an old box, especially at the corners. The difference in the appearance between good and bad gold can soon be distinguished; the former never, the latter soon tarnishing. It is needless to say examine the workmanship; that may be good sometimes in modern pieces, in which case they are worth having. The odour of new lac is said to affect many people very seriously with a complaint termed lacquer poisoning; in mild cases it affects the skin, but in severe instances it upsets the system entirely.

“The age of a piece, or rather the date beyond which it cannot be placed, may often be approximately ascertained by studying the design. For instance, many designs can be traced to Hokusai and so cannot be more than a century old. As Mr. Anderson points out, the great majority of the decorations seen upon lacquered objects are merely copied by the draughtsmen from pictures by noted painters. Honnami Koyetsu

and Koma Kiuhaku were the first to invent their own designs.

“Collectors must not be disappointed if they meet with few signatures upon lacquer. The ordinance never to buy without a signature does not apply here. Large pieces are seldom signed; when they are, that fact generally tends to raise suspicion. Inros much more frequently bear the name of the maker, sometimes hidden away in the interior or at the side of the piece. These are made in a variety of ways; Korin sometimes models his heavily in the body of the work, at others merely scratches it with the point of a needle in the interior. Yosei's signature is always incised. The Kajikawas painted theirs in gold lac on the lower edge, adding a sort of urn-shaped seal. But, after all, signatures should not count for much. A few hours' careful study of good pieces, under an intelligent master, countervails all this after which, as the saying is, *il ne faut pas être grand clerc matière d'Art* to distinguish between fine and inferior work.

DEAKIN BROS. & Co.,
 FINE ART CURIOS,
 16 BUND—YOKOHAMA.

NO AGENTS EMPLOYED. NO CONNECTION
 WITH ANY OTHER STORE OR
 CONCERN IN JAPAN.

SIR EDWIN ARNOLD'S OPINION OF MESSRS. DEAKIN BROS. & CO.'S ESTABLISHMENT.

BY SEA AND LAND.

To the Editor of *The Daily Telegraph*.

SIR—O Tori San, plumpest and most cheerful of waiting maids, has just brought in and presented, upon her knees and nose, copies of a Japanese Art journal sent me by its editor. This brings to mind that I have had no time as yet to write on the large and attractive subject of Japanese art, hitherto but little understood, notwithstanding the rich collections of bronzes, ivories, porcelain, lacquerwork, carvings, arabesques, embroidery, painted screens, and pictures, which have been many times gathered in London. Japan is, in one sense, a land peopled by artists. Everybody here, from the highest to the lowest, has some trace, at least, of that æsthetic comprehension, indescribable but instinctive, which makes an art-lover feel at a glance the supreme excellence of the Elgin marbles, the consummate beauty of the Parthenon, the grace of Raphael, the strength of Michael Angelo, the sweetness of Beethoven's "Adelaide," the divine tenderness of Chopin's Funeral March. That sort of faculty is, in a certain degree, innate in the Japanese, though their schools and their canons of art differ so widely from those of the West. Nothing is ugly in the very humblest Japanese home. From the rice-tub to the hairpins, all domestic and personal articles are more or less beautiful and becoming. The Government, sharing the national passion for beauty in Nature and Art, plants seats just

at those spots of its public gardens and highways where the view is perfect of Fuji San or of the sea, or of some range of wooded hills; and it is common along the bye-roads to find official notices telling you where to stop for the best prospect, or how to find the most lovely clump of plum or cherry blossom. In the same spirit the peasant and the artisan, when their wife sets a flowering plant on the *Tansu*, looks upon it almost in the light of a good meal, and might grudge money for fish or rice, rather than for that. A corresponding artistic genius runs through all their crafts, making their commonest domestic joinery almost like jeweller's work for finish, their mat-making as delicate as silk weaving, their tubs and pails and buckets as exquisite in design and completeness as ivory work. And the strange thing is that they have the two styles rarely found combined, one of which is characterised by this same exquisite finish, while the other is that swift, suggestive impressionism so constantly seen in their ordinary drawings and designs. Where they will complete a thing, nothing can be completer; the microscope itself could find no flaw in the patient, faithful article turned out. When, again, they merely desire to arouse the imagination, one sweep of the brush, one turn of the dexterous wrist, and they have indicated twenty leagues of blue distance, or limned a bird's wing in the very act of beating. This latter manner, also, characterises their national poetry. Bear with one little scrap of it, in order to realise how the Japanese Muse can trust the quick fancies of her children in the domain of song. A Japanese girl, going to her well in the morning, finds that a convolvulus during the night has twined its crimson and purple bells and green tendrils round the pail. It is too beautiful to disturb.

She abandons the bucket to the fragrant invader, and goes next door to fill her domestic utensils. Out of this simple incident comes a famous song, done in three lines and five words. These are :

Asagao-ni
Tsurube torarete
Morai midsu.

The literal translation of which is—

Convolvulus
Bucket taking,
I borrow water.

And every Japanese ear understands, and every Japanese mind can delight in, the photographic brevity with which the scene and the thought are thus flashed, as it were, into the music and into the heart. But, to convey these to a Western ear and understanding, it would be needful to expand the Japanese poem into at least as many words as the following :

The "Morning-glory"
Her leaves and bells has bound
My bucket-handle round.
I could not break the bands
Of those soft hands.
The bucket and the well to her I left ;
Lend me some water, for I come bereft.

And so must all the finer and subtler specimens of Japanese art—outside as well as inside its classical poetry—be, as it were, translated and expanded for the general Western comprehension. On the screen in my bed-room are two turtles swimming in the sea, wrought upon the flimsiest of paper, with certainly not more than three brushes full of Indian ink. The first brush swept in the forms of the reptiles, and the vague veil of the sea-wave half covering them. The second delineated, by soft half-tints, the mail-plates of their carapaces, their bending flappers, their horny-plated heads, and shadowed bellies. The third, charged with the last and darkest wash, gave, by instantaneous touches, life and

motion to the creatures, made the water seem to follow their gliding shells, and the fins appear to fold as their stroke is finished—effected, in a word, just enough for the imagination to complete the irresistible suggestion—so that there is a picture, in it, perpetually delightful, which perhaps occupied three minutes at most of the artist's time.

In this kind of triumph the Japanese designer reigns supreme; but, beyond the familiar region of leaves, flowers, birds, and creatures which have no particular individuality, and which may be therefore freely generalised, he seems not to perceive, or not to value, the primary element of beauty. As regards the human form, he shows himself indeed insensible to the real canons of art, albeit this is not for lack of power and observation; for the statues and figures wrought in wood, and coloured to the life, which I have seen here in the Art-School of the University, and also at Yokohama in Mr. Deakin's very rich emporium, are of a finish and force positively without parallel in their kind. It is life itself which the Japanese wood-carver there elicits from his blocks of beech or pine, and they carry out the exactness of the representation, which is often of life-size, to a single hair and to a wandering blue vein—one might almost say to the very pores of the skin. Nor does it matter, to their patient hand and eye, what is the material in which they work. In our sitting-room here, at my side, is a black panel of cherry-tree with a figure upon it, in ivory, of a cock—a *niwatori*, or “garden-bird,” as the Japs call the domestic fowl. The artist evidently had picked up a disregarded thin slice of a tusk, the remnant of some manufactory of knife-handles or hair-brushes, and had asked himself what could be made of it. He saw, in its oval form, the possible delineation of a cock resting

on one leg, with his head drawn back into his feathers. He has realised this vision perfectly, cutting, chiselling, scratching his ivory plaque into such admirable veracity of outline, and such precise truth of texture, that the hackles, the wing-primaries, the wattle, the beak and claws, the eyes, the comb, the soft feathers of the *tarsi*, and the waving plumes of the tail have all of them the appearance of nature itself—although the plate of ivory was not bigger than the top of a hat, to begin with. Yet, either because the type of Japanese feminine beauty is *petite* and little varied, or because its really gracious and refined points have never been studied artistically, or have been studiously despised and disregarded, no Japanese painter or carver can make half as pretty and graceful a female face and figure as he, or anybody, may see in a day's walk about Tokyo or Kyoto. This may be partly due to the only half-concealed subordination and disesteem in which the sex is here held, speaking nationally. Nobody is, indeed, ever brutal to a woman in Japan, as in Europe. She has nowhere and never of fear cruelty, violence, or even harsh words. But her status is traditionally inferior, and she lives a semi-slave in too many cases—vastly superior though she is in physical and mental type to the masculine portion of the population; and, all things considered, perhaps naturally the most refined, the most gentle, the best-mannered, the most modest, and most self-respecting woman, after her own fashion, in the whole world; and, in a placid and unemotional way, the most grateful for deference and attention, and the most attached and faithful in return for affection. Strange, in truth, it must seem that this graceful and fairylike fellow-countrywoman has never inspired Japanese artists with the ideal of human beauty latent in her special charms. They can see beauty, too,

everywhere else. Round this house run broad unpainted planks of fir, fixed to strengthen the outside *amemados*, or rain-shutters. To give them ornament and lightness, the builder has set a craftsman to cut stencilled ducks and pheasants out of the blank face of the wood. Nor is it possible to exaggerate the skill and spirit with which he has put his fret-saw into the plank, and by a cut or two here and there, through which the external light passes, created the most fantastic and amusing groups of wild-fowl in flight, or gulls and terns floating upon water, or of pheasants and other birds passing through the air. Who else could thus saw a hole in a fir-slab which should look so like the outline in silver of a wild goose on the wing, that a sportsman might almost swear to the breed and the colour? * * *

I should be inclined to declare the supremacy of Japanese art most assured in wood, ivory, and panel carving. Certainly there is nothing known to me in Europe, from the masterpieces of Grinling Gibbons down to the best things in modern churches and mansions to come near what superior Japanese workmen can achieve. Their ivory *Netsuké* are well enough known, but you must still come to Japan to see the best and finest. These little articles—cut out of any scrap of elephant tusk on hand—are used as toggles or studs wherewith to suspend from the girdle the purse, the tobacco-pipe, or the doctor's case of medicines. With incredible patience, with instructive skill, and nicest observation of Nature, the craftsman not only produces by manual use of the file, graver, and drill, the perfect if grotesque object intended, and finishes it off in all its hidden corners, with a scrupulous conscientiousness, but obtains also by dexterous superficial lines and marks, the exact texture of the skin, or hair, or feather to be indicated. One of the larger specimens

recently shown to me represented a bag of rice with two or three dozen rats in and upon it. Every rat was as individual in character, position, and action, as if a special portrait had been taken of him, and the web of the bag, the glistening grains of rice, and the sleek fur of the rodents could not have been better expressed in painting. Again, at the Art School of the University I spent a morning lately in one of the rooms, where twenty or thirty advanced students were carving for practice, and for the purposes of a lecture upon slabs of simple white fir wood. In no other part of the world could such natural dexterity, precise observation, and consummate command of the chisel have been witnessed. Seated on the ground, and using no mallet, but merely driving with hand and palm sharp-edged gravers and gouges, these men seemed to treat the wood as if it were clay. Under their touch delicate and delicious pictures arose, in low relief, of bamboo sprays, of the rising moon; of flights of wildfowl over lakes and rice-fields, of blossoming plum-groves, and cherry-gardens, and lotus-pools, and of Fuji San soaring, beautiful and majestic, from her girdle of clouds. And these marvellous specimens were being executed in the commonest material, and merely as a kind of college exercise!

To see the very choicest and rarest of such examples of the wonderful art-crafts of Japan, one must live in the country and inspect not only the articles shown in the best curio shops, but the private heirlooms in the houses of the nobles, and the treasures of the temples. For the passing traveller who wishes to carry off with him trophies of his stay in Japan, there is an admirable and well-known art store on the Bund at Yokohama. Whoever will pay the necessary price for really good things, chosen by the experience and judgment acquired

during many years, will find them in this collection, which has no rival anywhere in this country. It employs directly many of the best native artists, and has agents always travelling in out of the way places, where relics of the highest ancient art may still be picked up. There is, consequently, no better spot where a knowledge of the range and variety of Japanese art—old and new—may be so soon and pleasantly acquired. Practically, everything is to be found there, from the rare and precious real Satsuma—the delight of connoisseurs—to Awata and all the other marks, some of it ancient and some, even more beautiful, of modern work, to the delicious little sword hilts and scabbard plates, where whole legends are depicted in delicate gold upon bronze, rendered even more precious than gold, by deft artistry. The tourist or collector will see there without any trouble matchless *Cloisonné*-work by that prince of designers, Namikawa of Tokio, whose tender gray and rose-hued tints prove him a master of the science of colour, and by other makers hardly inferior, who know how to employ to the utmost advantage the newly-invented and dazzling gold stone, producing with it and the rest of their rich palette effects superior almost to jewellery or to Jeypore enamel. I was shown last week at Messrs. Deakin's house two spherical vases of *Cloisonné*, made to the order of Count de Bardi, of Venice. The Count had given 1,000 guineas for the pair, and they were worth it, for never, I think, did human hand create objects of such quiet, but satisfying beauty, of such marvellous finesse of toil, yet producing such broad and splendid and harmonious results. Each of these exquisite vessels presented a perfect feast of colour from surfaces finished in every point like the petal of a lily leaf, but full of a thousand

different and delicate creations of fancy, and of alternately bold and tender contrasts of tint. The whole process of *Cloisonné* work may be studied on the premises, and not until the patient, skilful artist has been observed at his labours is it possible to realise the vast amount of delicate manipulation entailed in the creation of these lovely pieces. First, there comes the difficult task of beating out the copper sheets to the required form for the foundation. Next the artist has to trace on its face the intricate design of flower, bird, or landscape; then the piece is passed on to another department, where for weeks, months, or years supple fingers are engaged in fixing over the sketched design the minute bits of wire that go to make the metallic partitions for the reception of the enamels, and not until it has been "filled" five times, and has entered the kiln as often, does the article reach the polisher, and from his hands pass to the showroom. Specimens of *Cloisonné* work, forty, fifty, or sixty years old, tell how great has been Japan's advance of late in this section of her art industry. Then the finished article was dull, leaden in colouring, indistinct in design; now it is bright, chaste, and supremely beautiful. At the art store on the Bund of Yokohama you will see and covet ivory carvings of ancient or modern imagination, lacquered work in red and black, glorious inlaid panels in gold and silver and mother-of-pearl, antique and recent weapons and utensils, bronzes ranging in value from fifty sen to five thousand dollars, magnificent cabinets, boxes and tables enriched with fantastic designs in gold and powdered egg-shell—these and countless other treasures attract the attention. I was shown a folding screen, destined, like the lovely vases, for Italy, on which five special craftsmen had laboured incessantly during six years, using up, not

only all that time and all their skill, but nearly six thousand dollars worth, besides, of gold, silver, pearl, shell, ivory, jewels, and the finest lacquer. It portrayed how Yamatodakè tempted the dragon to drink sakè, and how he killed the great beast in order that he might himself win the lovely daughter of the Sun-Goddess in marriage; and it was altogether such a magnificent work as could in no other country save Japan be seen or produced. Then there are to be studied and admired dazzling brocades and silken *kakemonos*, strange old temple lamps which have lighted the devotions of numberless dead generations of Buddhists, bronze shrines, and bronze Dai-Butsus, among the last of which I saw an image presented by the Shogun Yoritomo to the Riu Shoji temple in commemoration of his victory over Hidekèsà. At this really wonderful emporium one may examine, as nowhere else, the *Tsuba* or sword-guards, the *Fuchi-Kashira* or scabbard ornaments, splendid and precious sword-blades. *Kiserus*, pipes in gold and silver which have soothed the lips of old feudalistic lords and ladies, vases of rock-crystal and jade, marvels of cutting, and quaint-looking dragons, in silver, bronze, and ivory, with scales that bend, moveable jaws, and jewelled eyes. I lately examined a piece of wood-carving, of absolutely matchless excellence in spirit and execution, representing two life-sized wrestlers struggling in the ring—the whole work cut and coloured to nature, every muscle and every vein delineated, every tendon and ligament anatomically perfect, a triumph of faithful study and minute observation. “Such cunning those that live on high have given to the Jap!” You will see this astonishing achievement of wood-carving in London, I think. Before it quitted the emporium it drew a constant crowd, and the sea-front of the premises had to be curtained

off at last. During the display a rather amusing incident occurred. A policeman informed the proprietor that, if he intended to continue the wrestling on his premises, it was necessary that he should engage a posse of policemen to restrain the crowd. He was invited into the store, and melted into official smiles when he saw that the wrestlers were carvings in wood. He muttered *naruhodo*, and left. Briefly there is no place in Japan to be so decisively recommended to the student of Japanese art with limited time at his disposal as the collection to which I am referring on the Bund at Yokohama, especially if he has taken the "curio fever," a dangerous malady, too well known to globe-trotters visiting Japan. It has been well written:

You don't "shop" in this country. Shopping implies premeditation, and premeditation is in vain in Japan. If you know what you want your knowledge is set aside in a moment, in the twinkling of an eye, and your purchases gratify anticipations that you never had, to be paradoxical. And you never fully know the joy of buying until you buy in Japan. Life condenses itself into one long desire, keener and more intense than any want you ever had before—the desire of paying and possessing. The loftiest aims are swallowed up in this; the sternest scientist, or political economist, or social theorist that was ever set ashore at Yokohama straightway loses life's chief end among the curios, and it is at least six weeks before he finds it again. And as to the ordinary individual, without the guidance of superior aims, time is no more for him, nor things temporal; he is lost in contemplation of the ancient and the beautiful in the art of Nippon, and though he sell his boots and pawn his grandfather's watch he will carry it off with him to the extent of his uttermost farthing. * * *

Yours obediently,

EDWIN ARNOLD.

Imai-chō, Jan. 20.

—From the *Daily Telegraph* March 10th, 1890.

EXTRACT FROM

NORMAN'S LETTER TO "PALL MALL GAZETTE"

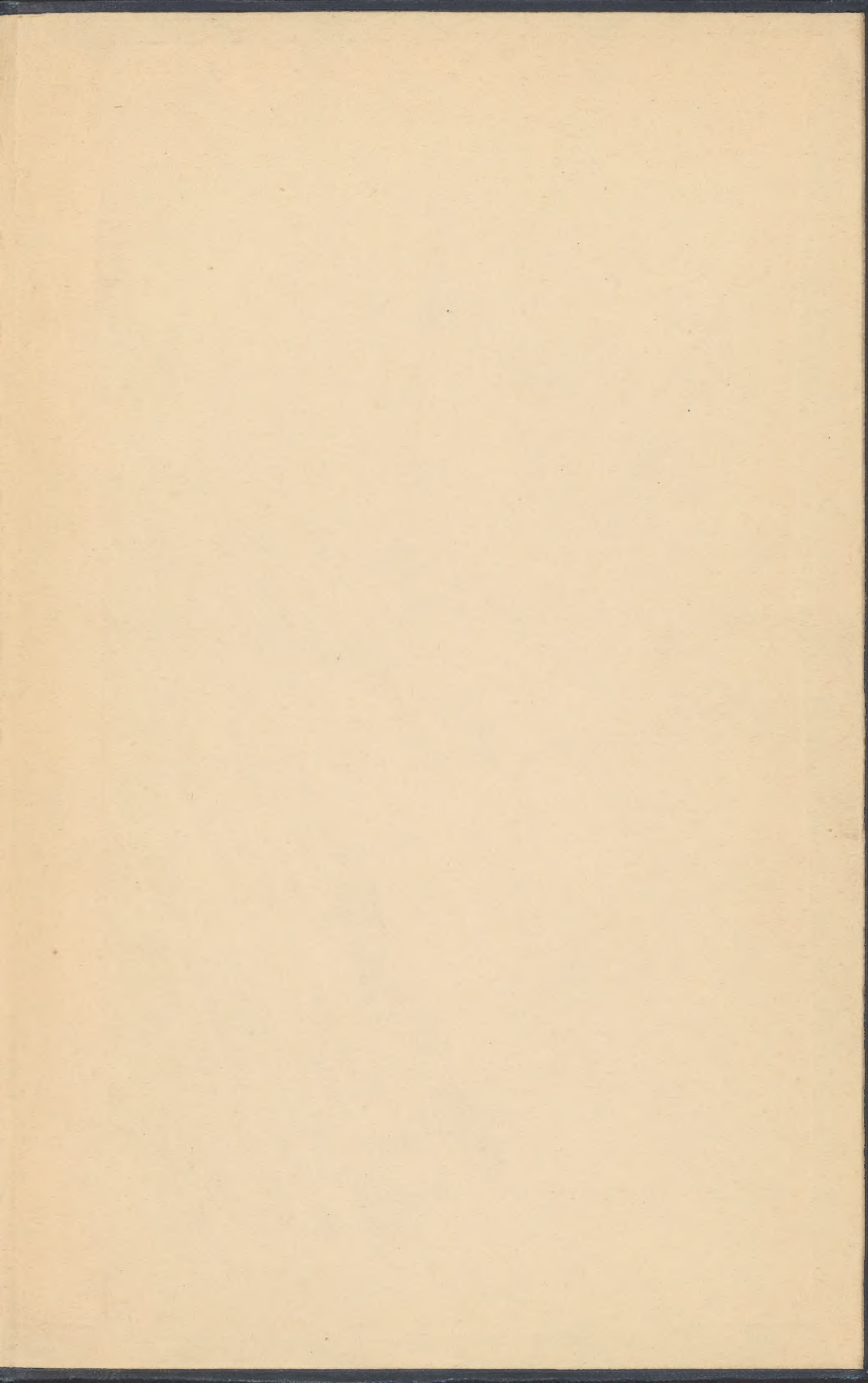
ON CURIO BUYING.

Japan Mail Tuesday, Oct. 2nd, 1888.

* * * * Upon curio buying, however, a word may be acceptable to intending visitors. I have prowled pretty much all over Yokohama and Tôkyô, sometimes alone, and sometimes under the guidance of a friendly expert, and I have finished by coming back for most of the things I wanted to Deakin Brothers on the Bund. Unless you know exactly what you want and can recognize it and its counterfeit when you see them, you are quite certain to buy rubbish at a high rate; and is one tourist in a thousand able to tell a lacquer *Kago* by Korin from an incense-box just out of the Tôkyô workshops, a bit of old *Kutani* porcelain from a forgery by Makuzu of Yokohama, or a bronze by Seimin from its doctored reproduction by Kyôtô experts? I doubt it. Deakin's best things, on the other hand, are bought for him by professional Japanese judges, and when he tells you that a certain thing is so-and-so, the chances are about even that it is. About curios, of course, there is no certainty except the certainty of great risk, and there are not more than half a dozen connoisseurs in the world who could give you a much better percentage of security than this. By a first-class Japanese curio-dealer, too, you are only shown one thing at a time, and a good deal of tea-drinking and sweetmeat eating is sandwiched in between the lacquer and the *Lung-chuan-yao*, between the bronze and the brocade. Whereas at Deakin's you can spend hours at your leisure looking over much the most varied collection of curios, especially

of the beautiful modern things, for sale in Japan, and the way-faring man, though a fool, cannot err much therein. If he charges you a little more—of course he would scout the idea—you are still the better off by several days' time spent in vain hunting, a good-sized jinrikisha bill, and a stomach-ache. I have dwelt on this point because everybody who comes to Japan is seized instantly, and no wonder, with the buying mania, and it does not leave him till his hand reaches the bottom of his pocket or his foot presses the deck of a returning steamer.





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